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Environmental Assessment

Beaver Meadows - Sauls Creek Landscape Travel Management

United States Department of Interior

Bureau of Land Management

Columbine Ranger District/Field Office,
San Juan Public Lands
Archuleta, Hinsdale, and La Plata Counties, Colorado

T34-36N, R5W-7W, N.M.P.M.

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SUMMARY

The USDA Forest Service (FS) and Bureau of Land Management (BLM) propose to implement *Executive Orders 11644 and 11989*, the *Forest Service 2005 Travel Management Rule*, and the *BLM National Strategy for OHV Use on Public Lands* through the designation of roads, trails and areas open to motor vehicle use by vehicle class and, if appropriate, by time of year within the Beaver Meadows-Sauls Creek Landscape (*36 CFR 212.51, 43 CFR 8342*).

The Beaver Meadows-Sauls Creek Landscape analysis area is located east of Durango and Bayfield and is within T34N-T36N, R5W-7W, N.M.P.M. on the Columbine Ranger District/Field Office, San Juan Public Lands, Archuleta, Hinsdale, and La Plata counties, Colorado.

The landscape analysis area includes a total of approximately 80,572 acres, of which approximately 54,357 acres are FS ownership (Beaver Meadows 48,557 acres, and Sauls Creek 5,800 acres), and approximately 797 acres are BLM. The travel management designations within most of the HD Mountains (except for Sauls Creek) were decided in the Record of Decision for the Northern Basin Environmental Impact Statement (EIS), April 2007, are generally not part of the decision space for this analysis.

This action is needed to provide a consistent national approach for motorized travel on National Forest system and BLM lands and to provide for motorized and non-motorized opportunities while protecting the biological resources. The proposal is designed to provide for appropriate motorized use, yet eliminate cross country motorized travel. It will provide for a sustainable system of roads, trails and areas and lessen the resource impacts from uncontrolled motorized travel. This analysis and decision will revise current travel management, which allows for cross country motorized travel by All Terrain Vehicles (ATVs) and motorcycles in some areas during the "summer" season. The action will not address over-the-snow winter travel and non-motorized use.

The FS/BLM evaluated the following alternatives in detail:

Alternative 1 - No Action
This alternative would allow for the existing travel management designations to remain in place; cross-country travel by ATVs and motorcycles in the existing "C", "D", and "E" areas and BLM "open" areas would continue to be permissible. Utilization of user-created routes and the proliferation of those routes would continue. This alternative would not address mixed use or off road travel for dispersed camping. A motor vehicle use map (MVUM) would not be published. This alternative does not meet the intent of the 2005 Travel Management Rule and cannot be chosen; it will be used as a basis for comparison for the alternatives.

Alternative 2 – National Forest System Roads and Trails (Minimum Motorized Opportunities)
This alternative would allow for existing travel management designations to remain in place except in areas where cross-country motorized travel is currently permitted. Cross-country motorized travel by ATVs and motorcycles in the existing "C", "D", and "E" areas and BLM areas of the Beaver Meadows-Sauls Creek Landscape would no longer be allowed and all motorized travel would be restricted to existing open National Forest system roads and trails. No new motorized roads, trails or areas would be designated. The travel designation for the BLM acres would become "limited", with no motorized roads trails designated.

Alternative 3 – Moderate Motorized Opportunities

This alternative would utilize many existing open Forest roads for all motorized vehicle use. Some selected closed roads and user-created routes would be utilized to create loops and out-and-back trails for wheeled vehicles 50" or less in width. Cross-country motorized travel by ATVs and motorcycles in the existing "C", "D", and "E" areas and BLM areas of the Beaver Meadows-Sauls Creek Landscape would no longer be allowed and all travel would be restricted to system roads and trails as designated under this analysis and decision. The travel designation for the BLM acres would become "limited", with no motorized roads or trails designated. Seasonal road closures would be put into effect for all Forest roads to protect the road base from erosion and rutting during the wet seasons. This alternative would include:

- 52 miles of designated motorized trail open to wheeled vehicles 50" or less in width, including three miles of single-track; 46 miles of open roads, for a total of 98 miles of motorized opportunities.
- Jungle Canyon and Moonlick roads restricted to vehicles 50" or less in width.
- The seasonal motorized closure on Baldy Mountain would extend from 8/20-11/15 annually.
- Two new parking areas are proposed.
- La Plata County would be offered jurisdiction of 2.5 miles of Beaver Meadows road and 1.9 miles of Sauls Creek road.
- Gates on new gas well roads in Sauls Creek would have OHV (50" or less in width) by-passes where motorized trails continue beyond the gate.
- The first segments of both the Sauls Creek (1.9 miles) and Beaver Meadows (2.5 miles) roads would be closed to mixed use.

Alternative 4 – Maximum Motorized Opportunities

This alternative would be the same as Alternative 3 with the following changes:

- 52 miles of designated motorized trail open to wheeled vehicles 50" or less in width, including four miles of single-track; 56 miles of open roads, for a total of 108 miles of motorized opportunities.
- Jungle Canyon and Moonlick roads open to full-sized vehicles.
- The seasonal motorized closure on Baldy Mountain would no longer be in effect.
- Three new parking areas are proposed.

All Action Alternatives

The following items would occur under any of the action alternatives: A MVUM depicting roads, trails and areas open to motor vehicle use by vehicle type and by time of year (*36 CFR 261.13*) would be published; the designated road and trail system would be signed; closures of non-designated roads, trails and areas would be accomplished as funding or partnerships becomes available; parking for the purpose of dispersed camping within 300 feet of a designated system road would continue to be allowed where such travel would not result in resource damage; and day use parking off of a designated rood or trail would be allowed within one vehicle length from the edge of designated roads or trails; seasonal closure to motorized public entry in Sauls Creek would remain in place.

Based upon the effects of the alternatives, the responsible official will decide what roads, trails and areas will be open to what type of motorized vehicles; what seasonal or wildlife closures will be implemented; and what distance motorized vehicles will be allowed to travel from forest roads for dispersed camping and day use parking. Also, the responsible official will determine routes for decommissioning, and the appropriate mitigation and monitoring measures to protect the resources while providing both motorized and non-motorized recreational opportunities.

Any action alternative will require a BLM Resource Management Plan Amendment to change the travel designation from “open” to “limited.” This Amendment is recommended by the Field Office Manager and authorization is at the level of the BLM State Director.

(See pages 10 - 21 for detailed alternative descriptions.)

CHAPTER 1 - INTRODUCTION

Document Structure

The FS/BLM has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations. This EA discloses the environmental consequences (direct, indirect impacts, and cumulative environmental impacts) that would result from the alternatives. The document is organized into five parts:

- *Chapter 1-Introduction:* The section includes information on the history of the project proposal, the purpose of and need for the project, and the agencies' proposal for achieving that purpose and need. This section also details how the FS/BLM informed the public of the proposal and how the public responded.
- *Chapter 2-Comparison of Alternatives:* This section provides a more detailed description of the alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes possible design criteria and/or mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- *Chapter 3-Environmental Consequences:* This section describes the environmental effects of implementing the alternatives. This analysis is organized by resource area. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- *Chapter 4-Agencies and Persons Consulted:* This section provides a list of preparers and agencies consulted during the development of the EA.
- *Appendices:* The appendices provide more detailed information to support the analyses presented in the EA.

Additional documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Columbine Ranger District/Field Office in Bayfield, Colorado.

Background

The FS and BLM recognize motorized recreation as one of the many legitimate uses of public lands, but also recognize that motorized use is rapidly increasing and requires a focused management effort to prevent unacceptable resource impacts.

The Chief of the Forest Service identified unmanaged recreation related to the use of off-highway vehicles (OHVs) as one of the major threats to National Forest System lands. As a result, in December of 2005, the Travel Management Rule became effective and was designed to aid land managers in managing motorized use. This Rule requires each National Forest and Grassland to designate a system of roads, trails and areas for motorized use by the public.

The BLM has identified motorized OHV use as a national management issue, and in response, issued the *National Management Strategy for Motorized OHV Use on Public Lands* (*USDI 2001*). This Strategy is designed to protect public land resources, promote safety for all public land users, and minimize conflicts among the various uses of public lands.

The Columbine Ranger District/Field Office falls under the administration of the San Juan Public Lands Center in Durango, and as such, is managed as a Service First office. Service First is a partnership strategy to provide better customer service and be more cost effective in the delivery of that service to users of the public land in southwest Colorado. Both FS and BLM lands are jointly administered with shared facilities, personnel, and management guidance. For this reason, this analysis encompasses both agencies' lands within the boundary of the project area.

The San Juan Public Lands Center established the following direction for its Travel Management planning process to lend guidance and consistency to the individual NEPA analysis being conducted across the San Juan Public lands.

- Over-snow winter travel will not be considered at this time. Winter travel regulations will remain unchanged.
- Travel management planning will use the travel management direction from the current Forest Plan/Resource Management Plan as the baseline condition and will use the following approach:
    - Motorized travel designations in areas currently restricted to designated roads and trails, "A" and "B" areas will not be modified at this time unless there is a compelling need to do so.
    - Travel management planning will focus on areas where cross-country motorized travel is currently allowed ("C", "D", "E", "F" and open BLM areas).
- User-created routes and/or the opening of routes currently closed to the public may only be considered when there is a compelling need to do so.

The existing travel management is represented on the San Juan National Forest (SJNF) visitors map as areas designations. The area designations define the degree to which motorized vehicles may travel off of the National Forest System (NFS) roads and motorized trails. Within these areas are NFS roads and trails and user-created routes which provide for the public to travel across the area. The area designations are as follows:

"A"- closed yearlong to passenger car, 4-wheel drive vehicle, ATV, motorcycle and snowmobile;
"B" – closed yearlong to passenger car, 4-wheel drive vehicle ATV and motorcycle and open to snowmobile;
"C" – closed yearlong to passenger car, 4-wheel drive vehicle; closed to snowmobile, ATV and motorcycle from 12/1-5/31;
"D" – closed yearlong to passenger car, 4-wheel drive vehicle and open yearlong to ATV, motorcycle, and snowmobile;
"E" – Special Closure areas;
"F" – open to passenger car, 4-wheel drive vehicle, ATV, motorcycle and snowmobile.

An engineering analysis of mixed use has been conducted for each proposed open road in this landscape. Mixed use refers to the operation of non-highway legal vehicles, such as ATVs and unlicensed motorcycles, on Forest/BLM roads that are open to highway legal vehicle use. This analysis evaluates road characteristics such as horizontal and vertical alignment, sight distance and roadside conditions, traffic characteristics such as volume, type, speed, driver traits, and accident history. The analysis results in an assessment of the crash risk in terms of probability and severity and identifies mitigation measures that could be employed to reduce this crash risk. This analysis provides information to the decision-maker to aid in determining what type of

motorized vehicles would be allowed on each designated road and what mitigation measures would be needed if mixed use were permitted.

Non-highway legal vehicles are prohibited on all La Plata County roads and highways. In this landscape, the roads that are affected by this prohibition are County Road (CR) 501 from Bayfield north along the western edge of the project area, CRs 526 and 527 from Highway 160 east to the Forest boundary in Sauls Creek, CR 521 (Buck Highway), US Highway 160, and many of the roads within Forest Lakes subdivision. Should the proposed action of La Plata County taking jurisdiction of an additional segment of FR 608 (Sauls Creek) and a segment of FR 135 (Beaver Meadows) be approved (Alternatives 2 & 3) these segments of road would also fall under this prohibition.

Discussions, analysis, and resulting decisions and policies regarding Travel Management under this EA do not apply to non-motorized uses in the landscape. Restriction to designated roads and trails only applies to motorized vehicles; non-motorized users may utilize any trail, road, or area at this time (except for prohibitions against mechanized and motorized vehicles in the Piedra Area).

Discussions, analysis, and resulting decisions and policies regarding Travel Management under this EA also do not apply to motorized over-snow uses in the landscape. Regulations and policy regarding over-snow uses remain the same, as shown as on the latest San Juan National visitor use map.

It should be noted that much of the language throughout this document refers to Forest Service terminology and policies. This is due, in part, to the minor amount of BLM surface ownership in the project area, and the fact that on the small parcel of BLM ownership, there are no official BLM roads or trails and none are proposed for motorized designation. Nonetheless, it should be remembered that the analysis and discussions include the BLM parcels.

Project Location

The Beaver Meadows-Sauls Creek Landscape analysis area is located east of Durango and Bayfield and is within T34N-T36N, R5W-7W, N.M.P.M on the Columbine Ranger District/Field Office, San Juan Public Lands, Archuleta, Hinsdale, and La Plata counties, Colorado (see Figure 1, Appendix A). The boundary for this landscape generally runs north along CR 501 from Bayfield to a point north of its junction with CR 240; northeast along the spine of Grassy and Indian Mountains to the Columbine District boundary; then southward along the Columbine District boundary to U.S. Highway 160; westward along U.S. Highway 160 to approximately opposite the Beaver Meadows road; southward encompassing the Sauls Creek area; west to CR 521 (Buck Highway), and north to Bayfield. The landscape analysis area includes a total of approximately 80,572 acres, of which approximately 54,357 acres are FS ownership (48,557 acres Beaver Meadows, and 5,800 acres Sauls Creek), and approximately 797 acres are BLM. Approximately 41,196 of those acres are within a current Forest Service “C”, “D”, “E”, or BLM “open” travel management prescription. The project area ranges in elevation from approximately 6,600 feet to 11,000 feet and is composed of vegetation types including piñon-juniper, ponderosa, mixed-conifer, and spruce-fir.

Beaver Meadows-Sauls Creek Landscape is characterized by activities found in a “working landscape”, such as timber production, livestock grazing, natural gas production, and recreational activities such as hunting and OHV riding. Many of the existing old logging roads were put into place during the 1940’s and are now being used by OHVs. While these roads are not designed for long-term use, in this landscape they have generally held up well.

On the east and north sides of the Beaver Meadows area is the Piedra Area, a congressionally designated area to be managed to retain its existing wilderness character and potential for inclusion in the National Wilderness Preservation System (*P.L. 103-77, 1993)*. The Piedra Area contains 62,550 acres, of which 15,000 acres are on the Columbine District.

Sauls Creek is also heavily used for "backyard recreation" like jogging and dog-walking. The area is easily accessible because of the logging roads and closeness to town. This landscape offers opportunities for motorized use because of the pre-existing infrastructure and the terrain.

Compliance with Administrative Framework

Forest Plan

This action responds to the Travel Management Rule of 2005 and the Amended Land and Resource Management Plan for the San Juan National Forest (*1992*). The project area includes Forest Plan Management Prescriptions 2B, 3A, 4B, 5B, 6B and 7E, and 1.11/1.12.

- 2B – Emphasizes rural and roaded natural recreation opportunities such as driving for pleasure, viewing scenery, and picnicking along sensitive travel routes while enhancing or maintain scenic qualities inherent in a forest environment. Forested lands in portions of the area are suitable for timber production.
- 3A – Emphasizes semi-primitive non-motorized recreation opportunities. Other resource uses occur if they are compatible with or enhance this type of recreation experience. Forest land is not suitable for timber production; however, wood products are available if harvest is compatible with semi-primitive dispersed recreation. The area is never open for motorized recreation activities except for specifically identified motorized corridors through the area.
- 4B – Emphasizes wildlife habitat management for one or more indicator species. Roaded natural recreation opportunities will be provided, but vegetation treatment and human activities are managed to provide optimum habitat for the selected species. Forested lands in portions of the area are available for timber production.
- 5B – Emphasizes big game forage and cover on winter range. Winter habitat for deer, elk, bighorn sheep, and mountain goats is emphasized. Treatments to increase forage production and structural improvements that are compatible with wildlife habitat occur. New motorized recreation is managed to prevent unacceptable stress on big game during the primary big game use season.
- 6B – Emphasizes livestock grazing through use of intensive grazing management systems and investments in structural and non-structural range improvements. Conflicts between livestock and wildlife are resolved in favor of livestock. Forested lands in portions of the area are suitable for timber production.
- 7E – Emphasizes production and utilization of wood fiber for sawtimber on gentle slopes. Management activities are not evident or remain visually subordinate along primary roads and trails. Dispersed recreation opportunities are available.
- 1.11/1.12 – Emphasizes wilderness characteristics of natural processes and conditions and solitude experiences. In this landscape, these areas are part of the Piedra Area, which is not true wilderness, but is managed to protect its wilderness characteristics.

The 1983/1992 San Juan National Forest Land and Resource Management Plan (Forest Plan) designated management areas across the Forest. The Beaver Meadows-Sauls Creek Landscape is located primarily in management areas 6B (domestic livestock grazing) and 7E (timber production). Together, these two management areas comprise about 88% of the Beaver

Meadows-Sauls Creek Landscape. Smaller areas are in management areas 2B (roaded recreation; about 5% of Landscape), 3A (non-motorized recreation; about 2% of Landscape), 4B (management indicator species; about 2% of Landscape), and 5B (big game winter range; about 2% of Landscape). Forest Plan standards and guidelines specific to management of MIS habitats and applicable to the proposed action vary by management area and are listed in the Forest Plan.

The Forest Plan standard of maintaining habitat capability for MIS at 60% of capability in management area 6B polygons is currently being met across the Landscape. Selecting any action alternative would likely improve habitat conditions for MIS by reducing the potential for disturbance from motorized use and reducing the potential for loss of key habitat components due to expansion of user-created trails. However, this habitat improvement is unlikely to be measurable or detectable at the Forest-wide scale. For this reason, Forest-wide habitat and population trends are not likely to be affected by the selection of any action alternative. Similar to the 6B management areas, the 40% habitat capability standard for MIS in 7E management areas is also currently being met across the Landscape, and selecting any action alternative is likely to improve habitat conditions for MIS, thereby continuing to meet Forest Plan direction for management of MIS habitats in the Landscape. In 7E management areas, selecting any action alternative is unlikely to alter habitat conditions for MIS in a way that is measurable or detectable at the Forest-wide scale or have a detectible effect on Forest-wide habitat or population trends for any MIS.

The State's population goals for commonly hunted MIS species are currently being met or exceeded in the Data Analysis Unit in which the Landscape is located. The action alternatives would improve security conditions for commonly hunted MIS species and therefore the 90% habitat effectiveness standard and the 80% habitat capability standard in the 5B management area would be met. The season closure period currently in effect in the Sauls Creek area would remain in effect, providing security areas for wintering big game animals.

Because the 40% habitat capability standard is currently being met in the 2B and 3A polygons, and the 80% habitat capability standard is also being met in the 4B polygons, selection of any action alternative will continue to meet Forest Plan direction for management of MIS habitats in the Landscape. Selecting any of the action alternatives is likely to reduce the risk of loss and/or impacts to key habitat components for MIS, such as standing snags, large-diameter down woody debris, seasonal wetlands, and mountain grasslands. For all the reasons, the proposed action is consistent with all applicable Forest Plan direction for MIS. Therefore, selecting any of the action alternatives is not expected to result in negative consequences to MIS populations or habitats from the standpoint of affecting viability at the Forest-wide scale.

2005 Travel Management Rule

Forest Service regulations at 36 CFR Part 212, clarifies previous policy related to motor vehicle use, including the use of off-highway vehicles (OHVs). The final rule requires designation of roads, trails, and areas that are open to vehicle use. Designations are to be made by class of vehicle and, if appropriate, by time of year. The rule also prohibits the use of motor vehicles off the designated system and on routes and areas not consistent with the designations.

Resource Management Plan

The *San Juan/San Miguel Resource Management Plan, 1985* (RMP) designates the BLM areas within the project boundary as emphasis areas H and J:

> H – Emphasis on for Public Land Disposal. Provide for very limited dispersed recreation activity. Allow motorized ORV use.
>
> J – Emphasis on Forestry and Wood Products. Manage for dispersed recreation as the primary recreation activity. Allow motorized ORV use.

Under BLM policy, areas are designated as "open", "limited" or "closed" to off-road vehicle use (*43CFR 8340*):

- An "*open*" area means that all types of vehicle use are permitted at all times, anywhere in the area, subject to certain conditions.
- A "*limited*" area means that there are restrictions regarding times, certain areas and/or certain types of vehicles, including motorized use only on designated roads and trails.
- A "*closed*" area means that off-road vehicle use is prohibited.

Because both of these management areas are currently designated as "open" (allowing ORV use) an amendment is necessary in order to restrict cross-country motorized travel. This EA proposes to amend the RMP to change the area designation to "limited" and will provide the analysis necessary to do so.

Executive Orders

Executive Orders *EO 11644* and *EO 11989* direct Federal agencies to ensure the use of off road vehicles on public lands protects the resources of the land, promotes the safety of all users of those lands, and minimizes conflicts among various users of public lands.

Executive Order 12898 "Environmental Justice", directs federal agencies to review proposed actions to ensure they do not result in disproportionately high and adverse environmental, health, or safety effects to minority or low income populations. Census Bureau data indicates that La Plata County, Bayfield, and Durango do not have any subject populations, therefore no disproportionate impacts will result from this project.

Purpose and Need for Action

The purpose for this action is to manage motorized vehicle use within the Columbine Public Lands in accordance with the requirements of the Travel Management Rule (*36 CFR 212*). The Rule requires the FS to designate a system of roads, trails, and areas for motorized use by vehicle class and, if appropriate, by time of year. Management under The Rule will also help meet goals of the BLM National Strategy for Motorized Use. The designation process will also identify where off road motorized travel for dispersed camping (camping outside of a developed campground) and day use parking will be allowed. The planning process will result in the publication of a Motor Vehicle Use Map (MVUM) that displays the designated system of roads and trails for motorized travel.

The Rule recognized that current regulations have not been sufficient to control proliferation of routes or environmental damage. Existing regulations were developed when OHVs were less

widely available and less powerful. The Rule was needed to provide national consistency and clarity on motor vehicle use within the National Forest System.

The elimination of unrestricted off road motorized use will help to alleviate resource impacts presently occurring in this landscape. This action will attempt to balance the current and future recreational desires of the public with resource impacts to wildlife, damage to wetlands, vegetation loss, soil loss, and cultural resource concerns. This action is needed to develop a system of trails, roads and areas where motorized travel is appropriate and will strive to improve both the motorized and non-motorized user's experience.

Proposed Action

The action proposed by the FS/BLM designates roads, trails and areas open for motorized use and institutes regulations to allow certain recreational use while protecting resource concerns. The action prohibits cross-country motorized travel and designates what types of motorized vehicles may legally travel on designated roads, trails, and areas. It specifies where dispersed camping and day use parking will be allowed, and provides for closures on roads and trails based upon seasonal conditions, and/or resource concerns. It describes needed partnerships with user groups to monitor compliance of the travel management designations. In addition, the action identifies trail design and maintenance needs, and mitigation necessary to provide for a sustainable system of roads and trails. (See detailed description of alternatives, pages 10-21)

Decision Framework

Given the purpose and need, the deciding official reviews the alternatives in order to make the following decisions:

Where will motorized vehicle use be allowed in the Beaver Meadows-Sauls Creek Landscape?

Will it be recommended that the RMP be amended to change the travel area designation to "limited" on BLM lands?

What types of vehicles will be allowed on open roads, trails, and areas?

What seasonal or wildlife closures are necessary?

What mitigation is necessary to achieve the purpose and need?

What monitoring will be part of the solution?

How far will travel off roads for dispersed camping and day use parking be allowed?

Is a dispersed camping limitation in Sauls Creek necessary to protect cultural resources?

It should be noted that the majority of the HD Mountains has already had a travel management decision under the *Northern San Juan Basin Final EIS*, and that decision is not being re-opened for evaluation in *this* analysis, except for two small segments of trail that link the Sauls Creek system to Lange Canyon. These segments are being reconsidered now only because they logically belong more to the Sauls Creek system than to the larger HDs system of trails.

The responsible official may choose an alternative in its entirety, may modify an alternative, or may craft a decision merging specific components from different alternatives.

Public Involvement

The proposal was listed in the San Juan Public Lands Quarterly Schedule of Proposed Actions beginning April 2007, which was available on-line and through quarterly mailings. A public meeting on August 21, 2008 in Bayfield, Colorado provided information concerning the 2005 Travel Management Rule, national direction, and an initial proposed action. The scoping proposal was also sent to those individuals, groups and agencies that had indicated interest but were not able to attend the above sessions.

In addition, as part of the public involvement process, the Columbine Ranger District hosted an organized field trip in September, 2008 to gather additional input. Additional field trips with interested clubs and individuals were also conducted.

Written scoping responses were received from 42 sources. The comments received ranged from support to opposition for the formal proposal presented in the fall of 2008. Using the comments and concerns from the public, organized groups and other agencies, the interdisciplinary team developed a list of significant issues to address.

Public involvement continued with a 30-day public comment period on the Pre-Decisional Draft EA during September and October, 2009. The comment period was announced through a letter sent to everyone who responded during scoping, a legal notice in the *Durango Herald* and *Pine River Times*, and a press release resulting in several newspaper articles. An open house was also held on September 28, 2009 to explain the alternatives to the public and answer questions about the Draft EA. Comments were received from 68 external sources, including 45 form letters, one letter from an organized group supporting motorized use, and five letters from organized groups generally supporting non-motorized use. The Forest Service considered the comments and prepared a Response to Comments document, which can be found in the project record. None of the comments resulted in substantial changes to the EA, although some editing and clarification of the text did occur.

Issues

The Forest Service/BLM separated the issues into two groups: significant and non-significant issues. Significant issues were defined as those directly or indirectly caused by implementing the proposal. Significant issues also usually result in the generation of an alternative, design criteria, or mitigation measure that addresses that issue. Non-significant issues were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council for Environmental Quality NEPA regulations require this delineation in Sec. 1501.7, "…identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)…" A list of non-significant issues and reasons regarding their categorization as non-significant may be found in the project record.

The Forest Service/BLM identified three significant issues generated from scoping. These issues and their associated topics include:

Issue #1: Impacts to Resources

Effects of motorized travel across the landscape have caused negative impacts to natural resources. These resource impacts are primarily due to travel by OHVs and vehicles driving cross-country off roads and trails, creating routes that are not designed to sustain the use they are

receiving. There are also resource impacts to the road base of the Forest roads when motorized travel occurs during the wet seasons.
Issues include:

A. Erosion and sedimentation impacting watershed and water quality.
B. Impacts to cultural resources.
C. Impacts to Roadless areas.
D. Wildlife disturbance.
E. Spread of noxious weeds.
F. Concentration of impacts caused by new restrictions.

Issue #2: Impacts to Social Niches

Motorized opportunities are desired by many people, but are incompatible with the desires of many others. These incompatibilities include several social issues:

A. Providing both motorized and non-motorized opportunities.
B. Noise impacts to quiet users.
C. Safety of non-motorized users.
D. Limiting motorized use would change the current recreation experience.
E. Limiting trails to 50” or less would prevent a segment of motorized users.
F. Requests for designation of certain specific routes.

Issue #3: Impacts to Adjacent Residents

Adjacent landowners and residents have concerns with how the proposed action will affect them, including:

A. New county jurisdiction on certain roads would prevent use of OHVs on those roads.
B. Designation of certain routes might encourage trespass.
C. Subdivisions desire direct access points to designated trails.

CHAPTER 2 - ALTERNATIVES

This chapter describes and compares the alternatives considered for the Beaver Meadows/Sauls Creek Travel Management project. It includes a description and map of each alternative considered. The alternatives were developed in response to issues that were raised during scoping. This section also presents the alternatives in comparative form, defining the differences between each alternative and providing a clear basis for choice among options by the decision maker.

Alternative 1 – No Action (Current Condition)

This alternative would allow for the existing travel management designations to remain in place ("A", "B", "C", "D", "E") and cross-country travel by ATVs and motorcycles to continue in the existing "C", "D" and "E" areas (see Figure 2, Appendix A). Utilization of user-created routes and the proliferation of those routes would continue. All existing National Forest System Roads (NFSR) would remain open to all motorized vehicle uses and Sauls Creek Trail (NFST #531) would remain open to wheeled vehicles 50" or less in width. Existing seasonal closures on Baldy Mountain and in Sauls Creek would remain. The existing BLM acres currently "open" for cross-country motorized travel would remain "open." This alternative would not address mixed use or off road travel for dispersed camping. A motor vehicle use map (MVUM) would not be published. This alternative does not meet the intent of the 2005 Travel Management Rule and cannot be chosen; it will be used as a basis for comparison of impacts between the alternatives.

Alternative 2 – National Forest System Roads & Trails (Minimum Motorized Opportunities)

This would be the alternative to which travel management would revert in order to minimally meet the intent of the 2005 Travel Management Rule, if no further site-specific designations were made (see Figure 3, Appendix A). This alternative would allow the most expeditious implementation of the rule. It would also best address the issues of impacts to resources like wildlife, soils, noise, and weeds by having the least designated motorized roads and trails, and would provide the most non-motorized opportunities.

This alternative would eliminate the area designations ("A", "B", "C", "D", "E") and authorize only the open Forest System Roads and currently designated motorized trails (as depicted on the SJNF Travel Map-2005) for motorized use. The current travel designation for these BLM acres would become "limited" – only open to motorized travel on designated roads and trails. The BLM acres currently have no system roads or trails and none are proposed for designation.

No new motorized roads or trails would be designated; no user-created routes would remain open to motorized uses, and no old logging roads would be designated for motorized use. All motorized vehicles, including those 50" or less in width, would be allowed on these designated roads and only motorized wheeled vehicles 50" or less in width would be allowed on the Sauls Creek (531) and the Baldy Mountain (801) trails. Parking for the purpose of dispersed camping within 300 feet of a designated NFS road would continue to be allowed where such travel would not result in resource damage. Mixed Use analysis (allowing highway-legal and non-highway legal vehicles to operate on the same road) recommendations would be considered and a MVUM

would be published. This alternative would not provide for additional parking facilities or seasonal closure gates.

The existing seasonal closure in the Baldy area would remain unchanged. This closure order states that from "*October 5 to November 15, it is prohibited to possess or use motorized vehicles within the following areas of the San Juan National Forest…. This closure is necessary to protect big game habitat effectiveness and maintain the non-motorized character of the area during big game rifle hunting season."*

The existing Forest roads and trails open to all over-the-ground motorized uses are:

Beaver Meadows:

- Beaver Meadows road (NFSR 135)
- First Notch road (NFSR 620)
- Moonlick road (NFSR 620), recommended 4x4
- Jungle Canyon road (NFSR 160)
- Ute Park road (NFSR 133), recommended 4x4
- Bear Creek road (NFSR 604)
- Beaver Slope road (135A)
- High Point road (NFSR 150)
- NFSR 069 & 601 to the gates
- Baldy Mountain Trail (NFST 801)

Sauls Creek:

- Sauls Creek road (NFSR 608/CR 527) & its spur road (NFSR 608A)
- Crowbar Creek road and its spur roads (NFSR 755, 755A, 755A1, 755A2, 755B, 755C)
- NFSR 131 and its spur roads (131A, 131B, 131C)
- Sauls Creek Trail (NFST 531) open to wheeled motorized vehicles 50" or less in width.

Non-motorized system trails (approximately 20 miles) in this landscape include the Pine/Piedra trail (NFST 521); a portion of Jacobs Ladder trail (NFST 538), Sheep Creek (NFST 599) and Indian Creek (NFSR 707); and about one mile in the Sauls Creek area.

The new gas roads within Sauls Creek (approximately 3 miles) would be gated at the point where the new gas roads leave the existing NFS road; The Record of Decision for the Northern San Juan Basin EIS, stated that all new roads would be gated and closed to all public motorized use as wildlife mitigation.

Design Criteria as described on page 16 also apply to this alternative.

Alternative 3 – Moderate Motorized Opportunities

This alternative would provide for motorized opportunities while protecting the natural resources (soils, vegetation, wildlife, cultural sites, etc.) of the landscape. The suitability of the terrain within this landscape allows for a fair amount of designated motorized recreation opportunities. It contains many slopes of 35% or less, old logging roads and skid trails that when connected would provide motorized trail opportunities without the expense of new trail construction. This landscape is an area within the Columbine Ranger District/Field Office that could easily provide recreation opportunities for the motorized community while other areas within the Ranger District/Field Office are not suitable. By restricting cross-country travel and by the designation of motorized trails, impacts to the vegetation, soils and wetland areas would be greatly reduced. The current resource concerns from user-created trails and travel across the landscape would be significantly reduced. This alternative addresses social issues by providing for some separation of full-sized vehicles and OHVs, and by allowing quiet users to choose non-motorized trails and areas.

This alternative would allow all motorized vehicles on existing open National Forest System Roads (as listed above in Alternative 2) except: on the Ute Park Road (NFSR 133) for three miles and the Moonlick Road (NFSR 620) for five miles (these eight miles would only be open to wheeled motorized vehicles 50" or less in width); no unlicensed motorized vehicles would be allowed on approximately the first 2.5 miles of Beaver Meadows road (NFSR 135) and approximately the first 1.9 miles of Sauls Creek road (NFSR 608) due to the volume of vehicles traveling these sections of roads to access private property (mixed use analysis recommendation).

Additionally, some selected closed roads, logging roads and user-created routes would become designated system trails to create loops and out-and-back trails for wheeled motorized vehicles 50" or less in width. Off road motorized travel for dispersed camping would be allowed 300 feet from the centerline of designated system roads, provided no resource damage would result. No dispersed camping would be allowed at the two overlooks adjacent to the Beaver Meadows road at mile point 9.5 and mile point 11.8, or at constructed parking lots adjacent to road closure gates. This alternative provides for some additional facilities such as parking areas and seasonal closure gates.

BEAVER MEADOWS:

- The beginning 2.5 miles of Beaver Meadows road (NFSR 135) would be offered to La Plata County to become a Country Road (under easement) since this section of road serves residential purposes.
- Some selected closed roads, logging roads, fire lines, and user-created routes would be designated to create loops and out-and-back trails for wheeled motorized vehicles 50" or less in width. The approximate mileage would be 39 miles of trails. When these 39 miles are connected with NFS Roads, approximately another 38 miles of riding and loops would become available, for a total of 77 miles of motorized opportunities. This includes three miles of motorized trail designated for motorcycle (single-track) use. These miles of motorized trails and roads are described below (refer to Figure 4, Appendix A for numbers):
    1) First Notch Loops – these loop trails consist of approximately nine miles of motorized trails open only to OHVs 50" or less in width. When incorporating sections of the First Notch road (NFSR 620) there would be an additional five miles for a total of approximately 14 miles.

2) Jungle Canyon - the motorized trails would consist of approximately 16 miles of designation for wheeled motorized vehicles 50" or less in width. There would be an addition 12 miles of NFSRs that could be used to provide loop options for a total of 28 miles of motorized opportunities. The Forest Roads which connect with the motorized trails to provide loops are: Jungle Canyon, Ute Park, Moonlick, and the main Beaver Meadows road. A minor connector segment of 0.12 miles at the east end of the Uncle Charlie road is potential future trail that would not be opened to use until it can be constructed to standard.
3) Bear Creek – this area provides an out-and-back trail (10 miles round trip) along an old fireline and user-created route from the end of the Bear Creek Road (NFSR 604). There would be a scenic view and turn-around at a high point within ¼ mile of the Forest Boundary which is adjacent to Forest Lakes (at this time there is no agreement with Forest Lakes to provide public parking and access and unlicensed motorized vehicles are not allowed on the Forest Lakes/La Plata County roads). The segment of trail between Rock Spring and the turnaround end point is potential future trail which would not be opened for use until erosion issues are corrected (approximately 0.4 miles).
4) Baldy Mountain area would provide a motorized trail of approximately nine miles. When utilizing small sections of Forest Roads 620, 135, 069 to 601, it would provide a total of 12 miles of motorized opportunities. In addition, a spur trail, approximately 0.3 of a mile long, would be designated for motorized travel by wheeled vehicles 50" or less in width to allow for dispersed camping.
5) A single track (motorcycle) trail of three miles would be designated from the Highpoint Road (NFSR 150) to the Bear Creek Road (NFSR 604). This single track is potential future trail which would not be open to use until maintained and any resource concerns (proper drainage, erosion) mitigated.

- The BLM lands (797 acres) would be designated as "limited" areas with no motorized roads or trails designated at this point in time.
- Resource based seasonal closure to all over-the-ground motorized vehicles would be put into place on Beaver Meadows road (NFSR 135) and First Notch road (NFSR 620) and all Forest roads and trails that branch off of these roads, from December 1st through May 31st (annually) at higher elevations and from January 1st through April 30th (annually) at lower elevations. "Higher elevation" is generally considered around 9000 feet or higher, but gate category could be influenced by site-specific situations. The purpose of the elevational closures is to avoid road damage when weather conditions are such that motorized travel will cause rutting and erosion from saturation, while still allowing lower elevations to be used during their longer dry season. (Over-snow winter uses will remain unchanged.) Approximate gate locations are shown on the maps in Appendix A.
- Parking areas would include the existing parking on First Notch Road, one mile from Hwy 160; Arbogas Flats on Bear Creek Road (NFSR 604); the gravel pit on Bear Creek Road (NFSR 604); the gravel pit seven miles from Hwy 160 on Beaver Meadows Road (NFSR 135); and a new parking area to be constructed adjacent to Beaver Meadows Road (NFSR 135) on the north side, 2.5 miles from Hwy 160. Signing and other needed trailhead facilities would be installed to provide visitor information.
- A Special Order would prohibit all motorized use in the Baldy Closure area from August 20th through November 15th, annually, to maintain the quality hunting and non-motorized character of the area during archery and rifle seasons. These dates increase the length of time beyond the existing closure dates.

- Five miles of the Moonlick Road (NFSR 620) and three miles of the Ute Park Road (NFSR) would only be open to wheeled motorized vehicles 50" or less in width, eliminating full size vehicles from these portions of the roads.

SAULS CREEK:

- 13 miles of selected closed roads, logging roads, fire lines, and user-created routes would be designated to create loops and out-and-back trails for wheeled motorized vehicles 50" or less in width. The southern half of the Lange Canyon loop is potential future trail which would require some re-working, drainage structures, and possibly a very small section of reroute prior to this loop being open to the public. When added to eight miles of existing NFS Roads that would also be open to all motorized vehicle use, there would be a total of 21 miles of designated road and trails open to wheeled vehicles 50" or less in width (See Figure 5, Appendix A).
- Some segments of the recently built gas roads would be incorporated into the motorized trail system with gates closing the new roads to full size vehicles, yet including a bypass for wheeled motorized vehicles 50" or less in width. Gates would be installed on the new roads generally at the point where the new gas road leaves the existing NFSR.
- Approximately one mile of the new gas roads would be closed to all motorized vehicles with gates having no bypasses. Gates would be installed where the new gas roads leave the existing NFSR.
- Access to the Deer Valley Subdivision from public lands is potential future trail which would be granted *if* public access is provided through Deer Valley Subdivision in the future. At that time, a motorized trail on the northeast side of the subdivision would be designated and open to wheeled vehicles 50" or less in width.
- A parking area would be constructed adjacent to the existing gate on the Sauls Creek Road, NFSR 608. Visitor signing and facilities would be installed as needed.
- The beginning approximately 1.9 miles of the Sauls Creek road (NFSR 608) serves residential uses and would be offered to La Plata County to become a County Road (under easement).
- The pre-decisional EA proposed that dispersed camping would be prohibited in some areas of Sauls Creek due to the density of significant cultural resource sites. However, after final field survey and analysis was completed, it was determined by the archeologist that this restriction is unnecessary.

See Appendix A, Figures 4 & 5: Alternative 3 Beaver Meadows-Sauls Creek Travel Management and Sauls Creek Travel Management maps.

Design Criteria as described on page 16 also apply to this alternative.

Alternative 4 – Maximum Motorized Opportunities _____

This alternative was formulated to better meet the growing demand for motorized use and provides slightly more separation of motorcycles and other OHVs. It would offer more miles of motorized roads and trails than Alternative 2 or 3. It also would not restrict part of the Ute Park and Moonlick roads to motorized vehicles 50" or less in width, continuing to allow full size vehicles and a loop for high clearance vehicles, which was an issue with many users.

This alternative would provide for the same motorized opportunities as Alternative 3 with some variations and additions:

BEAVER MEADOWS (refer to Figure 6 for numbers):

1) Same as in Alt. 3
2) Jungle Canyon - five miles of the Moonlick Road (NFSR 620) and three miles of the Ute Park Roads (NFSR 133) would be open to all wheeled motorized vehicle use [Recommended for 4x4].
3) Bear Creek - The Bear Creek trail to Forest Lakes would potentially be designated all the way to the private boundary, dependant upon Forest Lakes granting public access through Phase III in the future. Until that takes place, the trail would only be open to the turn-around. The segment of trail between Rock Spring and the turn-around is potential future trail which would not be opened for use until erosion issues are corrected (approximately 0.4 mile). Below Bear Creek Road (NFSR 604) there is an additional five mile loop which incorporates NFSR 604 and logging roads. Three of the five miles would be designated for wheeled motorized vehicles 50" or less in width.
4) Baldy - The existing closure order in the Baldy area would be removed, allowing motorized use by wheeled vehicles 50" in width or less on designated roads and trails with no seasonal restrictions during hunting seasons. The existing trail to Devils Hole would be open to wheeled motorized vehicles 50" or less in width to a pond. It would be an out-and–back trail of three miles one-way for a total of six miles of round-trip trail.
5) Construction of one additional mile of single track trail would be approved and designated as a potential future motorcycle trail. This would provide a connection to the Beaver Slope Road (NFSR 135A). Layout, analysis and construction would be necessary prior to designation.

SAULS CREEK:

- A newly built gas road extending NFSR 755.A1 would be open to all motorized uses to a proposed gate at the new gas well. Beyond the gate, only wheeled motorized vehicles 50" or less in width would be allowed. (see Figure 7)
- Deer Valley, a private subdivision, would potentially have up to two access locations from the subdivision to enter National Forest System lands dependant upon Deer Valley granting public access. The potential future access locations would be on the northeast side and on the west side of the subdivision, and would only be open to wheeled motorized vehicles 50" or less in width.
- Two miles (round-trip) of an out-and-back motorized trail south of the ridge on the Sauls Creek trail (NFST 531) to John's pond would be designated for wheeled motorized vehicles 50" or less in width.
- An additional parking area would be constructed on the Crowbar Creek Road (NFSR 755) near the gate.

See Appendix A, Figures 6 & 7: Alternative 4 Beaver Meadows-Sauls Creek Travel Management and Sauls Creek Travel Management maps.

Design Criteria as described below also apply to this alternative.

Design Criteria Common to All Action Alternatives

In response to public comments and internal staff concerns, design criteria were developed to ease some of the potential impacts of the action alternatives. The design criteria would be applied under any of the action alternatives (Alternatives 2, 3, and 4).

- All types of motorized travel would be restricted to a designated system of roads and trails.
- All roads and trails in the transportation system would be open for foot, bicycle, and horse travel unless specifically closed. Any trails within the Piedra Area prohibit motorized or mechanized travel.
- Designated motorized trails would be open to wheeled vehicles 50" or less in width unless specifically designated for motorcycles.
- Parking off of a designated motorized road or trail would be allowed within one vehicle length from the edge of the road or trail when such use does not create unsafe conditions and does not cause damage to resources and facilities
- Off road motorized travel for dispersed camping would be allowed 300' from the centerline of designated system roads, provided no resource damage occurs.
- OHVs 50" or less in width are limited to one vehicle length from designated motorized trails.
- Informational and regulatory signing to accommodate forest users would be identified and implemented and an MVUM would be published showing the designated motorized roads and trails, by vehicle type and time of year. This map would be the officially recognized tool for public information and enforcement.
- Designated open roads, trails and areas would require signing.
- Designated open roads and trails would require maintenance, according to FS direction, as funding allows (*FSM 2350, FSH 2309, FSM 2509.25, FSM 7730, FSH 7709.58*).
- Designated trails may require that fence crossings be built or maintained to protect the intended purpose of the fence while providing for motorized travel.
- Signing, closure or decommissioning of unauthorized routes would occur as funding allows.
- FS personnel and user groups would perform annual monitoring of the designated road and trail system to ensure compliance with Forest regulations.
- Mixed Use analysis completed and mitigation to include:
    - signing to alert drivers of the possible presence of OHVs on the road and at motorized trail crossings,
    - brush removal where needed to improve sight distance,
    - modify road maintenance schedules to allow road surface to remain generally roughened to reduce travel speeds,
    - sign roadway hazards,
    - reduce the number of motorized trail intersections, and
    - realignment of motorized trail intersections to improve sight distance.

- Travel Management designations would apply to the general public only. Exceptions could be allowed for permitted activities, administrative use, and emergency access.
- The existing seasonal closure order for the Sauls Creek roads would remain unchanged. This closure order states that *"from December 1 to April 30 it is prohibited to possess or use motorized vehicles on the Sauls Creek Road FDR #608 and the Crowbar Creek Road FDR #755."*
- Site-specific ground disturbing activities not specifically mentioned in this document may require additional cultural and/or threatened and endangered species clearances prior to implementation. These activities may also need 404 permits.
- Sign locations, brush removal for improved sight distance on roads and trails, new gates, and OHV bypasses, etc authorized under this decision should not be placed within any cultural site boundaries.
- Noise Management: The state of Colorado passed a state law, effective in 2010 that requires most OHVs to meet sound limits of 96 decibels (*CRS 25-12-110*). The Columbine RD/FO will coordinate with the State to enforce this decibel limitation in the effort to reduce noise which affects other users as well as disrupts wildlife. If necessary, a Forest Order would be developed to limit sound emissions to 96 decibels on the entire Columbine Public Lands.
- The District Recreation staff will continue to work with noxious weeds specialists on treatment along trails, trailheads, campgrounds and dispersed campsites.

Facilities:

Due to La Plata County's prohibition of non-highway legal vehicles (OHVs) on county roads, it would be imperative that parking facilities be provided on National Forest system lands in the future. These facilities could include parking, toilets, and signing. Potential locations have been described above in each of the alternatives. At such time in the future when the FS wants to implement facilities infrastructure, site specific designs and further analysis may be required.

Alternatives Considered but Eliminated from Detailed Analysis

Federal agencies are required by NEPA to explore and objectively evaluate all reasonable alternatives and to briefly discuss the reason for eliminating any alternatives that were not developed in detail (*40 CFR 1502.14*). Key public suggestions that were considered, but eliminated from detailed analysis are highlighted below. A complete listing of scoping comments and responses can be found in the project record Scoping Summary.

More Single Track –
This alternative was proposed by a specific user group. It would provide roughly 10 miles more of single track trail for motorcycle travel, in addition to the roads and trails proposed in Alternative 4. The additional proposed single track included the Pine-Piedra Stock driveway, a route south from Baldy along Heflin Creek, and other miscellaneous short segments.

The reason the Stock Driveway segments of single track were dismissed is because the Driveway cultural resource inventory has indicated that it is eligible to the National Register of Historic Places. Much of the driveway is currently used as a foot and horse trail with little to no evidence of motorized use in the recent past. Segments of the trail certainly retain their historic character. Designated motorized use of the historic trail would diminish the original (non-motorized) character of the Pine-Piedra Stock Driveway and would constitute a significant impact to this eligible resource.

The Heflin Creek route parallels the creek too closely and would increase the resource concerns. During field reconnaissance, it did not appear to have been used by motorized vehicles. Other various segments were eliminated from consideration because they crossed private land, were outside the landscape boundary, were similar to a route included in a proposed alternative, or were very short out and back segments that would not provide for the extended trail experience that users requested.

Designate All Existing or User Submitted Routes - -
This alternative would allow many more of the old logging roads and user-made trails to be designated for OHV travel than currently proposed. A user group provided rough maps showing an extensive network of desired trails. There are approximately 100 miles of old logging roads, skid trails, and user made routes that are in a variety of conditions. They range from usable for motorized travel if drainage work were done; to those with the old road prism sloughed off and overgrown with vegetation. Some of this alternative was not considered further because, while some of the roads could be utilized for OHV trails, many of them were in need of decommissioning to minimize soil loss and erosion concerns. Many of the requested routes run parallel to other trails and are redundant.

The Pine-Piedra Stock Driveway was requested to be a motorized route, but cultural resource inventory has indicated that it is eligible to the National Register of Historic Places. Much of the driveway is currently used as a foot and horse trail with little to no evidence of motorized use in the recent past. Segments of the trail certainly retain their historic character. Designated motorized use of the historic trail would diminish the original (non-motorized) character of the Pine-Piedra Stock Driveway and would constitute a significant impact to this eligible resource.

The access road from Forest Lakes Subdivision to the communications site on Grassy Mountain was also requested as a motorized route. This was eliminated from further consideration because there is no legal public access across the private Phase III subdivision roads, and also for protection of the equipment at the communications site.

At other locations, the exact requested route may not have been included in a developed alternative, but a similar, parallel, or near-by road or trail has been included. Roughly 50 % of the requested routes are included in one or more of the developed alternatives.

Other Key Suggestions

There was a suggestion to allow motorized vehicles wider than 50" on designated trails. This would allow some of the newer classes of vehicles, sometimes called UTVs, (such as the Yamaha "Rhino") to use the trails. The FS decided to stay with the "50 inch or less width" standard because it is a fairly consistent nation-wide standard, and to use another width would be confusing. The FS Region 2 Office has provided direction to use the 50" standard. Additionally, most trails are currently suitable for 50" and many could require reconstruction if opened to wider vehicles. OHVs wider than 50" can use open forest roads.

Another suggestion was to designate dispersed camping sites district-wide instead of allowing vehicles to travel up to 300' from centerline of a designated system road to camp (assuming no resource damage). The FS analysis team considered this suggestion and decided that in most places in this landscape, there is not enough damage occurring from dispersed camping that would warrant the restriction. The proposal in the pre-decisional EA to limit dispersed camping in Sauls Creek for the protection of archeological resources was later determined by the archeologist to be unnecessary.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative. Information in Table 1 is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

Table 1. Comparison of Alternatives based on Significant Issues

Issues	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Resource Impacts (Erosion, Wetlands, Roadless, Wildlife, Weeds, Cultural Resources)	Most Impacts	Least Impacts	Medium Impacts	Medium+ Impacts (Baldy closure removed, new construction, full-sized use of Ute and Moonlick, more miles)
Roadless	Continue to use Bear Creek Trail	No Bear Creek Trail	Designate Bear Creek Trail	Designate Bear Creek Trail
Social Niches (Differing Users, Physical Ability)	See Table 2, Miles Available by Mode of Travel			
Noise	Moderate	Least	Most	Most
Safety of Non-Motorized Users	Least Safe (area-wide motorized use – unknown encounters)	Safest (known motorized system – fewest motorized trails)	Moderately Safe (known motorized system)	Moderately Safe (known motorized system)
Safety of OHV users	Safest (least conjested)	Least Safe (most conjested use mixed with full-sized vehicles)	Moderately Safe (OHVs not on roads as much)	Moderately Safe (OHVs not on roads as much)
Subdivision Accesses	No Change	None	1	3
Possible New County Jurisdiction	None	None	4 miles	4 miles
Seasonal Road Closures	Sauls. Dec1-Apr30 Baldy Oct5-Nov15	Sauls. Dec1-Apr30 Baldy Oct5-Nov15	High elev. Dec1-May31 Low elev. Jan1-Apr30 Sauls. Dec1-Apr30 Baldy Aug20-Nov15	High elev. Dec1-May31 Low elev. Jan1-Apr30 Sauls. Dec1-Apr30 Baldy - none
Economic Impacts To FS				
Road Maintenance	$246,600	$246,600	$227,200	$248,600
Trail Maintenance	$12,500	$12,500	$33,400	$32,000
Mitigation	$0	$0	$30,000	$30,000
Implementation	$0	$54,340	$72,370	$74,460
Total	**$259,100**	**$313,440**	**$362,970**	**$385,060**

Table 2. Comparison of Alternatives based on Miles Available by Mode of Travel

Mode of Travel	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Roads open to Mixed Use (OHVs and automobiles)	55 miles	55 miles	46 miles (moonlick/ute park are only open to 50" or less)	56 miles (adds new road off of 755A1 in Sauls)
***Trail* open to motorized 50" or less**	7 miles (NFS trails) 58,413 acres* Approx. 100 miles **	7 miles	52 miles*** (3 of which are motorcycle only)	52 miles*** (4 of which are motorcycle only)
Roads and motorized trails together	162 miles	62 miles	98 miles (3 of which are motorcycle only)	108 miles (4 of which are motorcycle only)
***Non-motorized* Trail**	20 miles	20 miles	20 miles	17 miles (part of Devil's Hole Trail becomes motorized)

*Number of FS acres in "C", "D", and "E" travel management prescription in the landscape.
** This estimate includes old logging roads, user-made routes including switchback cuts and dead ends and single track trails.
***While total miles happen to be equal in Alt.s 3&4, they are different configurations (see maps).

CHAPTER 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section summarizes the physical, biological, social and economic environments of the affected environment for each resource followed by the potential changes to those environments due to implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives presented in the tables above.

The following chapter is organized by resource area to address issues that were raised during scoping (e.g. Vegetation, Watershed, Wildlife, etc.). Resources for which issues were not raised are not discussed (e.g. Air Quality). Each resource section begins with a description of the Affected Environment, or existing conditions. Then, each section provides an analysis of direct and indirect effects, or Environmental Consequences, of implementing each alternative. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and occur later in time or removed in distance. Differences in impacts between alternatives are emphasized. Each resource section then describes Cumulative effects, which are the direct and indirect effects of the project added to the effects from other past, present, and reasonably foreseeable actions.

There are no prime or unique farmlands, Wild and Scenic rivers, parklands, or wilderness in the project area; therefore, there will be no impacts to these resources from any of the alternatives, and these resources are not discussed further.

Vegetation, Soils, & Weeds

AFFECTED ENVIRONMENT

The Beaver Meadows/Sauls Creek Travel Management project area occurs at elevations ranging from about 7,000 to 11,000 feet in a landscape dominated by mountains, hills, forests, woodlands, and shrublands. Geology of the area consists mostly of sedimentary deposits associated with the Animas, Lewis shale, Mancos shale, Morrison/Wanaka, and Dakota/Burro canyon formations. Alluvial deposits also occur. Upland soils of the project area classify predominantly as alfisols and inceptisols. They are mostly moderately-well to well-drained and productive. Soils formed from the Mancos and Lewis shale formations and soils on slopes greater than about 20% in the Sauls Creek Area are highly susceptible to water erosion, ruts, and soil compaction. Other soils are mostly stable.

Vegetation is dominated by mixed conifer forests, ponderosa pine forests, aspen forests, piñon juniper woodlands, and sagebrush shrublands. Riparian areas and wetlands, which occur throughout the project area, include willow and narrowleaf cottonwood types that occur on poorly-drained soils that classify as mollisols and entisols. There are no threatened or endangered plant species known to occur in the project area. There are known populations of Forest Service or BLM sensitive plant species in the project area.

The spread of noxious weeds happens through many modes (vehicles, humans, livestock, wind, wildlife, horses, etc.) and continues to be a threat to the native ecosystems. Canada and musk thistle, noxious weeds that likely got introduced to the project area by motor vehicles and

logging operations, occur along some roads. Treatment of noxious weeds across the District is carried out according to priorities paired with available funding.

Road and trail construction in the project area removed vegetation and litter, and compacted soils along the road and trail corridors, which caused a long-term loss of soil productivity.

ENVIRONMENTAL CONSEQUENCES

Alternative 1- No Action

Adverse effects to vegetation and soils would not occur or be minor if motor vehicles stay on designated roads and trails, but since this alternative also allows motor vehicles to travel off of designated roads and trails, more significant adverse effects to vegetation and soils would occur. Effects include crushing, delimbing, and uprooting plants (which can cause mortality), soil erosion, soil compaction, rutting, and spreading of invasive plants. Additional minor effects may occur to vegetation and soils during road and trail maintenance. Ruts and some soil erosion would occur on roads and trails since this is normal for unsurfaced roads. Resource-based seasonal closures during the wet season on Beaver Meadows road, First Notch road, and all other roads that branch off these roads would not be implemented so ruts and erosion would be excessive on those roads.

There are no known threatened or endangered plant species in the project area and no known habitat for them, so there would be no effects to these species. Since the Forest Service sensitive plant species in this project area occur in relatively remote locations away from existing roads and trails, it is unlikely that they would be affected by the motorized travel associated with this alternative, but the potential is higher for an adverse effect to occur to them, compared to the other alternatives, because the plants occur in travel management area D where motorized travel is not restricted to designated roads and trails.

This alternative would have the most adverse effects to vegetation and soils because it allows motor vehicles to travel off of designated roads and trails where effects to vegetation and soils are much greater compared to travel on designated roads and trails. This alternative also has the most potential to spread invasive plants.

Alternative 2

Adverse effects to vegetation and soils would not occur or would be minor due to designation of motorized roads and trails. These minor effects could include crushing, delimbing, and uprooting plants (which can cause mortality), soil erosion, soil compaction, and rutting. Additional minor effects may occur to vegetation and soils during road and trail maintenance. Ruts and some soil erosion would occur on roads and trails since this is normal for unsurfaced roads. Resource-based seasonal closures during the wet season on Beaver Meadows road, First Notch road, and all other roads that branch off these roads would not be implemented so ruts and erosion would be excessive on those roads.

Since there are no known threatened or endangered plant species in the project area and no known habitat for them, there would be no effects to these species. Since the Forest Service sensitive plant species in this project area occur in relatively remote locations away from existing roads and trails, and since motorized travel is restricted to designated roads and trails, it is unlikely that those plants would be affected by the motorized travel associated with this alternative.

Of the alternatives that restrict motorized travel to designated roads and trails (Alternatives 2, 3, and 4), this alternative would have the least adverse effects to vegetation and soils and would have the least potential for the invasion and spread of invasive plants because it offers the least amount of miles available for motorized travel.

Alternative 3

Adverse effects to vegetation and soils would be minor due to designation of motorized roads and trails. These minor effects could include crushing, delimbing, and uprooting plants (which can cause mortality), soil erosion, soil compaction, and rutting. Additional minor effects may occur to vegetation and soils during road and trail maintenance. Ruts and some soil erosion would occur on roads and trails since this is normal for unsurfaced roads. Resource-based seasonal closures during the wet season on Beaver Meadows road, First Notch road, and all other roads that branch off these roads would be implemented reducing ruts and erosion.

The construction of two new parking areas would remove vegetation and litter, and compact the soils causing a long-term loss of soil productivity.

Since there are no known threatened or endangered plant species in the project area and no known habitat for them, there would be no effects to these species. Since the Forest Service sensitive plant species in this project area occur in relatively remote locations away from existing roads and trails and since motorized travel is restricted to designated roads and trails, it is unlikely that they would be affected by the motorized travel associated with this alternative.

Of the alternatives that restrict motorized travel to designated roads and trails (Alternatives 2, 3, and 4), this alternative would have the second most adverse effects to vegetation and soils and would have the second most potential for the invasion and spread of invasive plants because it offers the second most amount of miles available for motorized travel.

Alternative 4

Adverse effects to vegetation and soils would be minor due to designation of motorized roads and trails. These minor effects could include crushing, delimbing, and uprooting plants (which can cause mortality), soil erosion, soil compaction, and rutting. Additional minor effects may occur to vegetation and soils during road and trail maintenance. Ruts and some soil erosion would occur on roads and trails since this is normal for unsurfaced roads. Resource-based seasonal closures during the wet season on Beaver Meadows road, First Notch road, and all other roads that branch off these roads would be implemented reducing ruts and erosion on those roads.

Construction of a new single track trail designated for motorcycles would remove vegetation along the trail corridor, cause soil compaction and a long-term loss of soil productivity, and create a new avenue for the invasion and spread of noxious weeds and invasive plants.

The construction of three new parking areas would remove vegetation and litter, and compact the soils causing a long-term loss of soil productivity.

Since there are no known threatened or endangered plant species in the project area and no known habitat for them, there would be no impacts to these species. Since the Forest Service sensitive plant species in this project area occur in relatively remote locations away from existing roads and trails, and since motorized travel is restricted to designated roads and trails, it is

unlikely that those plants would be affected by the motorized travel associated with this alternative.

Of the alternatives that restrict motorized travel to designated roads and trails (Alternatives 2, 3, and 4), this alternative would have the most adverse effects to vegetation and soils and would have the most potential for the invasion and spread of invasive plants because it offers the greatest number of miles for motorized travel.

CUMULATIVE IMPACTS

Current conditions of the vegetation and soils in the project area have resulted from many activities over time including timber harvest, livestock grazing, recreation, mining, fire, fire suppression, and fuels treatments. These activities will continue to occur in the foreseeable future resulting in additional changes to the vegetation and soils of the project area.

Current conditions of the vegetation and soils in the project area have also been affected by travel management activities including road and trail construction and maintenance as described above. Continued road and trail construction and maintenance and the associated effects to vegetation and soils will continue to occur in the foreseeable future in the project area.

Past travel management activities including road and trail construction and maintenance have also had an effect on the invasion and spread of noxious weeds and invasive plants in the project area. Continued motorized travel on the roads and trails of the project area will continue in the foreseeable future to provide avenues for the invasion and spread of noxious weeds and invasive plants.

Watershed

AFFECTED ENVIRONMENT

The travel management analysis area encompasses streams in the Piedra and Los Piños River drainages, and includes portions of the following seven watersheds: First Fork, Bear Creek, Upper Piedra-Indian Creek, Yellowjacket, Upper Beaver, Middle Beaver, and Lower Beaver. Named streams draining to the Piedra River include:

First Fork (and tributaries West Prong, Clear, Trout and Grassy),
Indian Creek (and tributary Heflin Creek),
Yellowjacket Creek.

Named streams draining to the Los Piños River include:

Bear Creek,
Beaver Creek (tributaries Little Beaver, Lang Canyon),
Sauls Creek,
Armstrong Canyon (Long and Trail Canyon).

Streams such as Beaver Creek and Indian Creek developed a trellis drainage pattern controlled by the joints and layers of the bedrock. There are approximately 310 miles of streams in the travel management landscape.

Streams in the project have been categorized by the state as having the beneficial uses of aquatic life, agriculture, water supply and recreation. Water quality is generally good, and no streams in the project area are listed as water quality impaired streams (303 d list).

The Missionary Ridge Fire of 2002 impacted the northern edge of the landscape, with large fire lines being created on the ridgeline between Grassy and Indian Mountains, and extending to the top of the Beaver Meadows Road. The small amount of burned area in this landscape and the revegetated fire lines are not contributing in a substantial way to any watershed effects.

The small streams on the slopes from Baldy Mountain to Indian Creek are subject to occasional debris flows that appear to be triggered by rapid snowmelt during high-snow years. Major erosion/debris flow has taken place in the last two years, but it is does not appear to be related to any roads or trails.
Wetlands occur in many of the valley bottoms and at scattered spring areas. Stock ponds have been developed in many of these areas. In the Sauls Creek portion, stock ponds and erosion control structures (gully plug dams) dating from the 1930's are common. Many of these Sauls Creek structures have triggered additional gullying at their outfalls due to lack of maintenance.

Approximately 100 miles of old logging roads and other travel ways exist in the analysis area. Some recently used logging roads have adequate water drainage. Many of the rest have eroded to bedrock. In addition to the local loss of soil productivity, much of the sediment from these sources makes its way to streams. Most of the roads and trails in the analysis area do not run adjacent to streams or impact the stream banks or riparian areas except at constructed crossings. Even if roads or trails are not adjacent to streams, summer rainstorms can still move the eroded soil through intermittent draws and deliver sediment to stream courses. A recent study on the Colorado Front Range found that a square foot of actively-used ATV trail creates almost twice the amount of sediment as a square foot of road actively used by full-sized vehicles (*Welsh 2008*).

Watershed Assessment

A broad scale *Aquatic, Riparian, and Wetland Ecosystem Assessment* was done for the on-going Forest Plan revision process (Winters 2006), based on geology, GIS analysis, and comparative ranking of watersheds within the Forest. The watersheds were ranked for the amount of anthropogenic (man-caused) disturbance, and for the sensitivity to disturbance based on map analysis and statistics. No on-the-ground inventory was done for this Forest-level assessment. This assessment indicated that most watersheds in the project area had low to moderate levels of anthropogenic disturbance. Three watersheds, Yellowjacket, Upper Beaver Creek, and Middle Beaver Creek, did have high levels of disturbance. Yellowjacket is also in the category that is calculated as having high sensitivity.

Upper and Middle Beaver Creek are in geomorphic cluster (5r), and Management Considerations state that, "The wide range of conditions found in this cluster should make it possible to identify acceptable levels of influences and goals for watershed improvement." Site-specific inventory of stream and riparian condition done in Upper Beaver Creek near the Forest boundary in 2005 found that this stream is in Proper Functioning Condition (Prichard, 1998). Regardless of the level of activity found in the GIS analysis, the actual condition of the receiving stream is acceptable. Though no PFC was done in Middle Beaver Creek, on-the-ground observations indicate that it is similar to Upper Beaver Creek. Watershed improvements relative to travel management in these watersheds will consist mainly of road decommissioning.

The Yellowjacket watershed is in geomorphic cluster (4r). It was calculated as having both high levels of anthropomorphic activity and high sensitivity. Management Considerations for

watersheds in this geomorphic cluster state that, "Anthropogenic disturbances that increase sediment production would be detrimental to fish populations and riparian communities in low gradient reaches throughout much of this cluster. In addition, ground disturbing activities appear to be prevalent throughout this cluster. As transportation, vegetation management and mineral activities dominate the watersheds with a high potential for anthropogenic disturbance, mitigation as well as proactive management techniques may be necessary in high potential influence watersheds." The Yellowjacket watershed includes Squaw Creek that parallels Highway 160, a portion of the Piedra River, agricultural and residential development on private land, and land south of Highway 160 which is outside this travel management plan. Site-specific inventory of stream and riparian condition on Freeman Creek, one of the main tributaries that drains predominantly Forest Service land and is in the travel management project area, was done in 2005. It indicated that this stream was in Proper Functioning Condition. Watershed management that will decrease sedimentation in the Yellowjacket watershed in the travel management project area will consist of road decommissioning and, depending on the alternative, specific trail reroutes to decrease wetland impacts.

All travel management alternatives except the "no action" alternative will decrease sedimentation as travel routes are closed and rehabilitated. The effects of alternatives are discussed in the environmental consequences section below. In general Alternative 2 would have least watershed impacts, but Alternatives 3 and 4 are in keeping with the Management Considerations from this assessment.

Compliance with Clean Water Act

The Clean Water Act recognizes Best Management Practices as the primary mechanism to control nonpoint sources, as supported in EPA guidance (*EPA 1987*), "For proposed management actions, Best Management Practices designed and implemented in accordance with State approved process will normally constitute compliance with the Clean Water Act."

The Watershed Conservation Practices Handbook (FSH 2509.25) also states that, "Watershed conservation practices will meet applicable Federal and State laws and regulations, including State Best Management Practices."

This project is designed to reduce resource impacts, including impacts to wetlands and soil loss, as stated in the Purpose and Need. Best Management Practices for watershed health (called Design Criteria in the Watershed Conservation Practices Handbook) are included in the Design Criteria for this project, as constrained by FS budget limitations.

ENVIRONMENTAL CONSEQUENCES

Alternative 1 - No Action

This alternative would lead to the greatest impacts on water quality, wetland and riparian areas. Current problems would continue to get worse, with additional areas being changed from vegetated to little or no vegetation because of use by motorized vehicles. The resulting erosion has an increased chance of introducing sediment to streams because riparian vegetation that captures and filters sediment may also be impacted. The badly eroding areas would continue to erode, and alternate braided routes developed by users around the impassible areas would become new sources of bare ground and sediment. Wetlands on the Baldy Loop and First Notch Loop would continue to be impacted by vehicles.

Alternative 2

This alternative would lead to the least impacts on water quality, wetland and riparian areas. With no vehicle traffic, many of the non-vegetated areas on user-made routes would revegetate. In areas that are currently eroded, prohibiting cross country vehicle traffic would allow a rock

armor layer to form, which would inhibit further erosion. Without continued traffic, wetlands in the Yellowjacket watershed currently impacted by user-made trails near Dry Lake Reservoir (the First Notch Loops area) and north of Trail 801 (the Baldy Loop area) would revegetate. The wetland on the Bear Creek trail in the Bear Creek watershed near Forest Lakes would continue to erode on the existing vehicle tracks, but new routes around the bad spot would not be developed. The gullied spots on the Lange Canyon Loop in the Middle and lower Beaver Creek watersheds would continue to erode, but at a slower rate than if subjected to continued traffic.

Alternative 3

This alternative would have moderate impacts on water quality, wetland and riparian areas. User-made routes that are non-sustainable would be closed and allowed to revegetate. With a finite number of trails to manage, there would be periodic maintenance of drainage structures on the trails, which is an improvement over the current status. Wetlands in the Yellowjacket watershed currently impacted by user-made trails near Dry Lake Reservoir (the First Notch Loops area) and north of Trail 801 (the Baldy Loop area) would be protected by minor realignments to avoid the wetland vegetation when funding allows. The wet spot on the Bear Creek trail in the Bear Creek watershed near Forest Lakes would actually be improved under this alternative, because a sustainable trail with proper drainage would be constructed on the current alignment prior to opening this segment, thus reducing erosion and the vegetation disturbance from user-made trails bypassing the bad spot. The eroded portions of the Lange Canyon trail would be maintained or rerouted with proper drainage. The portions of Bear Creek, Lange Canyon Trails and single track that are causing resource damage would not be opened until they are maintained and resource damage mitigated.

The seasonal road closures would benefit the water resources during times when the roads and trails become saturated and are prone to rutting ands channeling water down the road or trail surface.

Development of parking areas would cause a short-term increase in erosion, but would have no long-term effects.

Alternative 4

This alternative would also have moderate impacts on water quality, wetland and riparian areas, though it would be somewhat more than the impacts of Alternative 3 because of the greater mileage of roads and trails.

Removal of the Baldy seasonal closure would allow traffic on the Baldy loop trail when it is likely to be wet from fall rains, which will cause more erosion than if this designated trail were closed in the fall. The additional motorcycle crossing of Beaver Creek will add an additional source of sediment and a small riparian impact.

Impacts to wetlands would be the same as in Alternative 3, with minor realignments at the wetlands near Dry Lake Reservoir (the First Notch Loops area) and north of Trail 801 (the Baldy Loop area), and reconstruction of the Bear Creek Trail near Forest Lakes with proper drainage. The eroded portions of the Lange Canyon trail would be maintained or rerouted with proper drainage. The portions of Bear Creek, Lange Canyon Trails and single track that are causing resource damage would not be opened until they are maintained and resource damage mitigated.

CUMULATIVE IMPACTS

Natural and man-caused activities have influenced the watersheds, water quality, wetland and riparian areas in the analysis area. The Missionary Ridge Fire of 2002 impacted the northern edge of the landscape, with large fire lines being created on the ridgeline between Grassy and Indian Mountains and extending to the top of the Beaver Meadows Road. The small amount of burned area in this landscape and the revegetated fire lines are not contributing in a substantial way to any cumulative watershed effects.

Logging and associated roads and skid trails have had an impact on watershed resources. Housing development and agriculture are occurring on private lands, mainly in the south half of the analysis area. Livestock grazing has been occurring since early in the 20th century, and is expected to continue without any appreciable cumulative effects to watershed resources.
In the next 20 years, the following actions are likely to occur in the analysis area: continued livestock grazing, fire suppression, wildfires, fuels reduction projects, increased motorized and non-motorized recreational uses and continued development on private land.

The cumulative effect of any of the travel management alternatives plus these other activities in the watershed are not expected to have any appreciable cumulative effects to watershed resources, including water quality, wetlands and riparian areas, at the watershed scale.

Access and Travel Management

AFFECTED ENVIRONMENT

The roads within the Beaver Meadows – Sauls Creek Landscape were originally developed primarily for timber and natural gas production. Currently, the road system supports a variety of uses that include resource management activities, timber production, natural gas production, access to range allotments and private properties, hunting, and both motorized and non-motorized recreation. The uses of the road system into the foreseeable future are not expected to change considerably, but an increase in commercial use associated with natural gas development and production is anticipated.

Motorized access currently varies from "*closed to all motorized use"* to "*open to cross-country motorized travel by ATVs and motorcycles*," as displayed on Figure 2, Alternative 1, in Appendix A.

The existing Forest road system consists of 27 miles of roads managed for high clearance vehicles and 28 miles of roads managed for passenger vehicles. There are approximately 27 miles of Forest system trails on the landscape, of which there are approximately seven miles that are motorized. There are numerous user-created routes that have developed in these areas through repetitive use by motorized recreationists. Many of these user-created routes have been developed on closed logging roads and some have been pioneered on new alignments.

There are a number of closed roads on this landscape that were formerly used for logging purposes. Most of these have some type of closure feature, such as a gate or an earthen berm to discourage full-sized motorized use. Where these roads are being used by OHVs riders, trails around these closure features have been created.

There are some roads in the Sauls Creek area that are not open for motorized use by the public. They are for administrative use by the Forest Service and designated permittees to access specific areas for resource management and oil and gas development purposes. These roads are closed to public use for a variety of reasons, including public safety, resource protection and security of oil and gas development infrastructure.

Road and Trail Conditions and Maintenance

The FS roads and trails in this landscape are designed for use between late spring and early fall. They are not designed for all-seasons. Roads and trails often become damaged when used by wheeled vehicles during extended wet periods that often occur seasonally in the spring and in the fall. Road damage may include potholes, rutting, loss of road base and surfacing materials and sloughing of adjacent embankment material onto the roadway. Trail damage may include rutting, erosion and widening or rerouting to avoid muddy or rutted areas.

Road and trail maintenance is performed periodically both to protect the investment and to make needed repairs. The maintenance frequency varies depending on the classification. The predominant maintenance activities are surfacing material replacement (gravel), blading, pulling ditches, cleaning out culverts and other drainage devices, improving drainage features and sign maintenance.

The overall SJNF budget for management and maintenance of Forest roads and trails is not sufficient to maintain all of them to standard. In recent years, the portion of congressionally allocated funding used directly for maintenance has averaged about 7.6% of the funding needed for annual road maintenance and about 38% of the funding needed for annual trail maintenance.

This has resulted in a large backlog of deferred maintenance needs for both trails and roads. In addition, funding for capital improvement projects has been very limited in recent years. This has resulted in limited funding for the addition of new roads and trails (either new construction or user-created routes) to the system. Therefore, when considering adding new motorized trails to the system, the funding of necessary improvements, maintenance, and mitigation measures should be addressed. One avenue to address these concerns would be to pursue grants, partnerships, and cost-share opportunities. A variety of local groups have expressed interest in partnering to maintain the trails that may result from this environmental analysis and decision.

Summarized in Table 3 below are the estimated annual and deferred maintenance costs for the Forest roads and trails within the Beaver Meadows – Sauls Creek Landscape.

Table 3. Estimated Annual and Deferred Maintenance Costs for Roads and Trails

Road or Trail Type	Maintenance Type	Cost per Mile	Miles	Maintenance Cost
High Clearance	Annual	$2,000	25.3*	$50,600
	Deferred	$2,600		$65,780
Single-lane Gravel	Annual	$7,000	28	$196,000
	Deferred	$53,000		$1,484,000
Trail	Annual	$464	27	$12,528
	Deferred	$917		$24,759

* Note: 1.7 miles of high clearance roads in the Sauls Creek area are maintained by private and commercial users and as such are not included in the maintenance miles or cost calculations.

ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Alternative 1 would not result in any changes to the existing travel management or transportation system, but would result in impacts to that system. This alternative would provide the most motorized opportunities of the alternatives by allowing some areas to remain open to cross-country motorized travel by ATVs and motorcycles. This would likely result in the proliferation of user-created routes that are both unmanaged and unmaintained. These routes may present safety hazards for motorized users, both on these routes, and where these routes intersect other roads and trails. Safety hazards may include steep grades, poor sight distance, poorly located road and trail intersections, improper alignment and geometry, and trailside hazards. Potential roadway safety hazards would not be mitigated to reduce conflicts between OHVs and highway legal vehicles. Maintenance costs would remain unchanged since there would be no change in the Forest road or trail mileages and the user-created routes would not be maintained (see Tables 1 & 2, pp. 20 & 21). Off road travel for day use would continue and could result in new user-created routes developing. There would be no changes in seasonal closures, so impacts to roads generally experienced during the spring wet seasons would continue. The cost for annual maintenance for roads would be approximately $246,600 and for trails would be approximately $12,500, which corresponds to the current annual maintenance costs since there would be no changes from current management. There would be no costs associated with implementation of travel management implementation or design criteria to mitigate crash risks.

Alternative 2

Alternative 2 would have both positive and negative transportation system effects. Alternative 2 would neither increase nor decrease the size of the motorized transportation system currently managed by the FS, but would reduce motorized recreation opportunities for OHV users by prohibiting motorized travel off existing Forest roads and motorized Forest trails. Motorized travel off Forest roads would be prohibited except within 300 feet of the centerline of designated system roads for the purposes of dispersed camping only, reducing impacts that are currently associated with off road travel for day use purposes. Cross country motorized travel would be prohibited, as would the motorized use of closed roads and user-created routes. This would aid in reducing the proliferation of user-created routes and the motorized use of non-designated roads, but may also result in increased congestion on designated roads and trails by concentrating motorized use onto the existing road and motorized trails. There would be no changes in seasonal closures, so impacts to roads generally experienced during the fall and spring wet seasons would continue, but these impacts would predominantly occur on designated roads and trails. Resource damage related to cross-country motorized use would be greatly reduced under all action alternatives compared to Alternative 1. Resource damage related to use during the wet spring season for Alternative 2 would be similar to Alterative 1, but would be greater than Alternative 3 and Alternative 4 due to the seasonal closures in these alternatives.

Annual maintenance costs for roads and trails would be similar to Alternative 1, approximately $246,600 for roads and approximately $12,500 for trails, since there would be no change in the Forest road or trail system. Alternative 2 would have implementation costs of approximately $54,340 that would be associated with developing a MVUM, general travel management signing, trail intersection signing and markers, and decommissioning of unauthorized routes, which is about $18,000 less than the implementation cost for Alternative 3 and approximately $20,000 less than the implementation cost for Alternative 4 (see Table 3).

Alternative 3

Alternative 3 would have both positive and negative transportation system effects. Alternative 3 would increase the size of the motorized trail system managed by the FS by about 45 miles and would reduce the road system by approximately nine miles of high clearance road. The total motorized miles of recreation opportunities would be fewer than Alternatives 1 and 4, and greater than Alternative 2. Congestion on motorized trails would be similar to Alternative 4 and would be less than Alternative 2. Motorized travel off Forest roads would be prohibited except within 300 feet of the designated road system for the purposes of dispersed camping only, reducing impacts that are currently associated with off road travel for day use purposes. Cross country motorized travel would be prohibited, as would the motorized use of closed roads and user-created routes. This would aid in reducing the proliferation of user-created routes and the motorized use of non-designated routes. The seasonal closures would reduce resource damage to roads and trails associated to use during wet seasons. Damage under Alternative 3 would be similar to Alterative 4, and would be less than Alternative 1 and Alternative 2. Resource damage related to cross-country motorized use would be less than Alternative 1, and would be similar to Alternative 2 and Alternative 4.

Annual maintenance costs for roads ($227,200) would likely be less than Alternatives 1 and 2 ($246,600) and less than Alternative 4 ($248,600) due to fewer open roads miles under this alternative. Annual maintenance costs for trails ($33,400) would likely be greater than that for Alternatives 1 and 2 ($12,500) and Alternative 4 ($32,000), which is a direct result in the differences in trail miles and types between the alternatives. The estimated cost for

implementation of this alternative is $72,370 and includes MVUM development, general travel management signing, road closure gates, decommissioning of unauthorized routes, trail intersection signing and markers, installation of two parking/turn-around areas, and necessary trail safety and drainage improvements. The cost of implementing Alternative 3 is about $72,370 greater than Alternative 1, $18,000 greater than Alternative 2 and $2,000 less than Alternative 4 (See Table 3).

To mitigate motorized vehicle crash risk and reduce potential conflicts between non-highway legal and highway legal vehicles on Forest roads, including approximately four miles where mixed uses would not be allowed, would be implemented at an estimated cost of $30,000. Safety conditions for OHV users would be similar to Alternative 4 and improved safety conditions over Alternative 2 because OHVs would have a network of trails allowing them to disperse off the roads. The cost of the mitigation measures would be the same as Alternative 2 and Alternative 4 (see Table 1, p.20).

Alternative 4

Alternative 4 would have both positive and negative transportation system effects. Alternative 4 would increase the size of the motorized trail system managed by the FS by about 45 miles and would increase the road system by approximately one mile of high clearance road. The total motorized miles of recreation opportunities would be fewer than Alternative 1 and greater than Alternative 2 and Alternative 3. Congestion on motorized trails would be similar to Alternative 3 and would be less than Alternative 2. Motorized travel off Forest roads would be prohibited except within 300 feet of the designated road system for the purposes of dispersed camping only, reducing impacts that are currently associated with off road travel for day use purposes. Cross country motorized travel would be prohibited, as would the motorized use of closed roads and user-created routes. This would aid in reducing the proliferation of user-created routes and the motorized use of non-designated roads. Resource damage for Alternative 4 related to use during the wet seasons would be similar to Alterative 3, and would be less than Alternative 1 and Alternative 2 due to the seasonal closures. Resource damage related to cross-country motorized use would be less than Alternative 1, and would be similar to Alternative 2 and Alternative 3.

The annual maintenance cost for roads ($248,600) is the highest of all the alternatives due to greatest miles of open roads under this alternative. Annual maintenance costs for trails ($32,000) would likely be greater than that for Alternatives 1 and 2 ($12,500), but slightly less than that for Alternative 3 ($33,400), which is a direct result in the differences in trail miles and types between the alternatives. The estimated cost for implementation of this alternative is $74,460 and includes MVUM development, general travel management signing, two road closure gates, decommissioning of unauthorized routes at the intersection of NFS roads, trail intersection signing and markers, installation of three parking/turn-around areas, and necessary trail safety and drainage improvements. The cost if implementing Alternative 3 is about $ 74,460 greater than Alternative 1, $18,000 greater than Alternative 2 and $2,000 greater than Alternative 3 (See Table 3).

To mitigate motorized vehicle crash risk and reduce potential conflicts between non-highway legal and highway legal vehicles on Forest roads, including approximately four miles where mixed uses would not be allowed, would be implemented at an estimated cost of $30,000. Safety conditions for OHV users would be similar to Alternative 3 and improved safety conditions over Alternative 2 because OHVs would have a network of trails allowing them to disperse off the roads. The cost of the mitigation measures would be the same as Alternative 2 and Alternative 4 (see Table 1, p.20).

CUMULATIVE IMPACTS

Much of the motorized transportation system within this landscape was developed through the construction of timber and natural gas roads. Many of these roads, which are in existing "C" and "D" travel management areas, were put into a non-use status rather than decommissioned, nor were they managed to discourage public motorized use. Use of these roads in many cases may be unsafe for the traveling public and has adverse environmental effects. The subsequent reduction in timber program and overall FS budget has reduced our ability to decommission these roads and to maintain Forest system roads and trails to standard. Natural gas development has resulted in the addition of more roads on Forest lands. While many of the roads used for access to gas development sites are maintained by the permittee during the development phase, the Forest Service will have to determine whether to adopt and maintain these roads post-development. If adopted, this would spread available funds over more road mileage.

Current budget trends will not support the addition of system trails without the assistance of grants and partnerships with user-groups to assist in development, maintenance, monitoring and self-patrol to comply with travel management designations.

The number of individuals in the United States participating in OHV use has increased tremendously in recent years. A report from the National Survey on Recreation and the Environment (June 2005) found that annual participation in OHV use between 1999 and 2004 grew from about 36 million to over 51 million. This trend is expected to continue, resulting in a demand for motorized recreation opportunities on public lands. In addition, OHV manufacturers are continually developing new types of OHVs that the agency may want to evaluate for use on public lands.

The roads within the Beaver Meadows-Sauls Creek Landscape were originally developed for timber harvesting and mining purposes. Currently, the road system supports a variety of uses that include resource management activities, permittee and private land in-holding access, hunting, sightseeing, trail access and OHV recreation. Current permitted activities include outfitter guide services and cattle grazing. The uses of the road system into foreseeable future are not expected to change considerably.

Roadless/Special Areas

AFFECTED ENVIRONMENT

Unroaded and undeveloped areas provide opportunities to manage for potential wilderness areas, non-motorized and limited motorized recreation, and other commodity and amenity uses. Areas that are undeveloped or roadless in nature can serve a variety of purposes. They can be managed as research natural areas or special interest areas, used for resource production or to provide non-motorized recreation, or, if suitable, recommended as wilderness. There are no congressionally designated wilderness areas in this landscape, but there is a small portion of the landscape in the Piedra Area and some Inventoried Roadless Areas (IRAs).

Piedra Area

The Piedra Area is located on the east and north sides of the Beaver Meadows landscape. This area is a congressionally designated area to be managed to retain its existing wilderness character and potential for inclusion in the National Wilderness Preservation System (*P.L. 103-77, 1993*), The Piedra Area contains approximately 60,500 acres total, of which 15,000 acres are on the Columbine District, and about 340 acres are in extreme northern tip of this travel management landscape. The Piedra Area is open to foot and horse travel, but not to mechanized or motorized travel.

Roadless Areas

Since the 1970's, the Forest Service has inventoried and studied roadless areas. These areas are referred to and tracked today as Inventoried Roadless Areas (IRAs). Roadless areas are generally defined as areas in a national forest or national grassland that (1) are larger than 5,000 acres (in the west) or, if smaller, contiguous to a designated wilderness or primitive area; and (2) contain no system roads; and (3) have been inventoried by the Forest Service for possible inclusion into the Wilderness Preservation System.

The Forest Plan (as amended) identified potential roadless areas on the San Juan National Forest and generally refer to them as Roadless, Unroaded, or RARE II Areas (Roadless Area Review and Evaluation) (*SJNF, 1992* p.IIa-5 - IIa-6). Of the 24 RARE II Areas listed in the Forest Plan, portions of two are found within this analysis area: 1. Piedra Roadless Area– approximately 22,000 acres of this area lie within this landscape; and 2. HD Mountain Roadless Area- approximately 1,000 acres of this area lie within this landscape. These two roadless areas were not recommended for inclusion into the Wilderness Preservation System under the Forest Plan, and neither of the two areas were established as Wilderness or Wilderness Study Areas under the Colorado Wilderness Act of 1980.

More recent inventory has updated the RARE II areas. Roadless inventory was updated for the *2001 Roadless Rule (USDA 2001)*, and then again for on-going rulemaking for the *Proposed Colorado Roadless Rule (USDA 2008).* The 2001 inventory is the same as the RARE II inventory for the portions in this landscape. The inventory for the *Proposed Colorado Roadless Rule)* is taking a closer look, and is refining the boundary to better reflect actual conditions on the ground. Under the 2009 inventory, there are approximately 18,900 acres of the Piedra Adjacent Roadless Area in this landscape, and approximately 772 acres of the HD Mountain Roadless Area in this landscape (see Figure 8, Appendix A).

ENVIRONMENTAL CONSEQUENCES

At the time of this writing, future management, policy, and guidance regarding the IRAs is in question pending the resolution of on-going court cases and rulemaking still in progress. It seems a likely result that the state of Colorado will be managed under either the *2001 Roadless Rule* or the *Colorado Roadless Rule* (still in rulemaking). Because of this uncertainty, impacts are calculated and displayed for both versions of roadless inventory boundaries. Neither of these rules, as currently written, would prohibit designation of motorized trails within IRAs, and none of the alternatives in this EA proposes to add new roads in IRAs.

None of the alternatives would alter conditions or impact the Piedra Area.

Alternative 1 – No Action

Under the existing condition, approximately 12,500 acres of 2001 IRAs are open to motorized cross-country travel in "C", "D", or "E" areas in this landscape. This number drops to 10,200 acres of the 2009 IRAs. This use is not consistent with the intent of the Travel Rule or the characteristics of IRAs.

Alternative 2

Under Alternative 2, there would be approximately 2.75 miles of designated motorized trail (Trail #801) within 2001 IRAs, or none within the 2009 IRAs. Under all three action alternatives, there would be no more cross-country motorized travel authorized, and the decommissioning of undesignated routes (as funding allows) would result in improvement of the overall undeveloped nature of the IRAs.

Alternative 3

Under Alternative 3, there would be approximately 13.3 miles of designated motorized trails within 2001 IRAs, or approximately 5.2 miles within the 2009 IRAs. This increases mileage over Alt. 2 due to the addition of the Bear Creek Trail, First Notch Loops, and the Lange Canyon Loop. Under all three action alternatives, there would be no more cross-country motorized travel authorized, and the decommissioning of undesignated routes (as funding allows) would result in improvement of the overall undeveloped nature of the IRAs.

Alternative 4

Under Alternative 4, there would be approximately 15.6 miles of designated motorized trails with the 2001 IRAs, or approximately 5.3 miles within the 2009 IRAs. This is more mileage than Alt.3 due to the addition of the Devils Hole trail and a possible future connection to Forest Lakes Subdivision. Under all three action alternatives, there would be no more cross-country motorized travel authorized, and the decommissioning of undesignated routes (as funding allows) would result in improvement of the overall undeveloped nature of the IRAs.

CUMULATIVE IMPACTS

As local communities continue to grow and the demand for nearby recreation increases, it is likely that over time the total miles of motorized routes both on and off of public lands will increase. The increase in recreation use may have cumulative effects on the characteristics of solitude and remoteness in IRAs.

There is natural gas well development on-going in and around the HD Mountain roadless area. Two wells pads with associated road/pipeline corridors were built in the 1990's within the

boundary of the 2001 IRA, but no more are currently planned within the IRAs in this travel management landscape.

Project proposals in the near future for forest vegetation management could possibly affect some roadless areas, depending on future policy and guidance for management of roadless areas. The emphasis for transportation would be on temporary roads necessary for short-term project implementation. These would be analyzed in the site-specific project environmental assessment.

Based on the information presented above, any alternative implemented in this analysis would not result in substantial impacts to roadless characteristics. The designation of motorized trail use within any of the IRAs would not drastically alter their roadless characteristics for two reasons: inventoried roadless areas may contain such improvements as motorized trails; and trails proposed for designation already exist on the ground and are currently in use as motorized routes.

Recreation

AFFECTED ENVIRONMENT

The Beaver Meadows-Sauls Creek Landscape is characterized by timber production, cattle grazing, dispersed recreation opportunities and methane gas production. The area has been grazed by cattle since the early 1900's, logged since the 1940's, with gas development in Sauls Creek beginning in the early 1990's. There are no developed recreation facilities within this landscape (campgrounds, day use areas, trailheads, designed parking areas, toilets, and available potable water or trash services). The Beaver Meadows area has been used by the public for dispersed recreation activities; hunting, horseback riding, hiking, camping, driving for pleasure via OHVs, motorcycles, jeeps, and snowmobiles and fire wood gathering. Sauls Creek is the backyard to the town of Bayfield and is used by the locals for running, hiking, horseback riding and OHV riding. A network of social trails has been made by these users. Out-of-state users utilize the area for late season hunting and camping.

The Recreation Opportunity Spectrums within the area include approximately: *Roaded Natural* (50%), *Roaded Natural Closed* (10%), *Semi-primitive motorized* (18%), *Semi-primitive non-motorized* (12%) and *Primitive-not Wilderness* (8%) and *Wilderness Primitive* (Piedra Area, 2%). These recreation opportunities include both motorized and non-motorized recreation possibilities with *Roaded Natural* as the main recreational opportunity.

Within this area there are currently 20 miles of non-motorized NFS trails. These 20 miles are made up of sections of five separate NFS trails (Pine-Piedra (521); Indian Creek (707); Jacob's Ladder/First Fork (538); Sheep Creek (599) and one mile in Sauls Creek. Most of these 20 miles receive little use and are difficult to find. Minimal trail maintenance has been done throughout the years and they are not signed on the ground. In the current "C", "D" and "E" travel management areas, cross-country motorized travel by ATVs and motorcycles has been allowed with some date restrictions based upon winter wildlife considerations and hunter experience.

There are 55 miles of open Forest Roads in this landscape and approximately 100 miles of old logging roads, skid trails, and user-created routes. The Beaver Meadows-Sauls Creek Landscape is most heavily used in the fall during big game hunting seasons, starting with archery in late summer and continuing through several rifle seasons into mid November. The users consist of locals as well as those from other states.

Private property exists adjacent to FS lands along the corridors of U.S. Highway 160 and La Plata County Road 501. There are numerous private parcels of various sizes next to or within the public lands and three subdivisions; Forest Lakes, Deer Valley and Pine Springs Ranch. County Road 527/Sauls Creek Road (NFSR 608) serves as access to private homes and to the National Forest.

The current recreational activities include driving for pleasure and viewing scenery, hunting, wildlife viewing, OHV riding, motorcycle riding, hiking, bicycle riding, camping, horseback riding, cross-country skiing and snowmobiling. Visitor use is the heaviest during the fall with moderate use in the summer and winter. There are four outfitter-guides operating under Special Use Permits in this landscape providing services that include hiking/educational trips, summer and fall horse pack trips and hunting. A local snowmobile club grooms most of the NFS Roads in the Beaver Meadows area under a Special Use Permit.

Within this landscape, much dispersed camping occurs during hunting seasons. Dispersed camping is conducted on Public Lands where no facilities (tables, toilets, water, trash service, etc.) exist, no fees are charged and if any services are available it is purely for the protection of the resource.

Within the current "C" and "D" travel management areas in the Beaver Meadows/Sauls Creek landscape, the network of old logging roads were built starting in the 1940's and continuing as late as the 1980's. Many of these roads and skid trails were designed for a one time use and often dead end at the timber sale boundary. In the last 5-10 years, there has been an increase in the amount of OHV use on the old logging roads and on user-made routes pioneered across the landscape. Many of the old logging roads dead-end, making no connections. The current OHV riding ranges from easy to moderate to challenging within this landscape.

Motorized and non-motorized organizations in the Durango, Bayfield and Pagosa areas enjoy recreating in this landscape and have stated an interest in partnering with the Columbine RD/FO to maintain trails and monitor use.

ENVIRONMENTAL CONSEQUENCES

Alternative 1 – No Action

Alternative 1, No Action, would allow the number of user-made motorized routes to increase and proliferate. The old logging roads would continue to be used, along with cross-country travel increasing erosion, vegetation loss, wetland damage, wildlife habitat loss, archeological damage and social conflicts.

Because the existing condition allows for cross-country motorized travel by ATVs and motorcycles, the non-motorized users in the area are less likely to find places for "quiet use" activities, especially during hunting season when many hunters prefer to hunt utilizing non-motorized transport. The amount and distribution of motorized noise across this landscape would be the most in this alternative.

The availability of recreation opportunities within this landscape would not change; non-motorized trails, camping, hunting, off-highway vehicle use, horseback riding, bicycling, and permitted outfitter/guide uses. This alternative would provide the largest area for motorized opportunities, but would not meet the intent of the 2005 Travel Management Rule and would not address the significant issues identified during the scoping of this project.

Alternative 2

Alternative 2 would restrict all motorized vehicle travel (both highway and non-highway legal) to existing Forest roads and motorized trails. This alternative would not allow any new trails to be designated for motorized use by vehicles 50" or less in width, and there would be no motorized cross-country travel reducing the resource impacts of rutting, soil and vegetation loss, disturbance to wildlife and archeological sites.

It would decrease the motorized recreation opportunities available to OHV users and would not meet the increased demand. This alternative would push all off-highway vehicles onto the same roads with other types of motorized vehicles, increasing traffic and safety issues. There would be no use of wheeled motorized vehicles 50" or less in width off existing Forest roads, except for seven miles of NFS trails (801 and 531).

This alternative would provide for a more "quiet" experience for those engaging in human powered activities off the main Forest roads. It reduces the distribution of motorized noise that may affect non-motorized users including non-motorized hunters.

With only seven miles of designated system motorized trails, the maintenance costs of trail work and signing would be less to the Forest in the long run but implementation costs of signing and closing the approximately 100 miles of logging and user-created routes would be costly in equipment and personnel.

Alternative 3

Alternative 3 would provide 52 miles of designated trails open to wheeled motorized vehicles 50" or less in width, along with the existing Forest roads for a total of 98 miles of roads and trails open to all motorized vehicle use. The designated trails for wheeled motorized vehicles 50" or less in width would provide for a semi-primitive motorized experience and would be in locations separate from the Forest roads providing for a safer situation. The new designated trails in this alternative would be added to the Forest system of trails and would be routinely maintained by staff or volunteers aiding in the protection of the resource and reducing resource impacts.

This alternative would close three miles of the existing Ute Park Road (NFSR 133) and five miles of the Moonlick Road (NFSR 620) to motorized vehicles wider than 50", providing a loop for motorized users with wheeled vehicles 50" or less in width. These two sections of Forest Roads are currently recommended for use by 4x4 vehicles due to the rough condition and clearance issues. The mileage of trails would increase for the OHV users, potentially increasing their quality of riding while limiting the experience currently enjoyed by the 4 x 4 enthusiasts.

This alternative would offer three miles of motorized single track which connects the High Point Road (NFSR 150) and the Bear Creek Road (NFSR 604) providing some single track experience desired by some users. This single track would not be designated open until the trail work and any reroutes are completed to create a sustainable motorized trail.

The extension of the Baldy Closure into the 20th of August would expand the non-motorized big game hunting experience during all hunting seasons, not just rifle seasons.

In La Plata County, OHVs and non-licensed motorized vehicles are not allowed on County Roads. This alternative proposes to put under easement to the County the first 2.5 miles of the Beaver Meadows road (NFSR 135) and first 1.9 miles of the Sauls Creek Road (NFSR 608). This transfer of rights would reduce the amount of roads open to non-licensed motorized vehicles by approximately four miles. It would also prevent residents along those segments from

accessing the forest roads directly from their properties with non-licensed vehicles. The mixed use analysis recommendation would be adopted and would result in the same restriction.

The mixed use analysis done for the project area recommends closing the first 2.5 miles of the Beaver Meadows Road (NFSR 135) and the first 1.9 miles of the Sauls Creek Road (NFSR 608) to non-highway legal motorized vehicles. This recommendation was made due to the volume of traffic by residents that use these roads to access their private property. This would reduce the amount of roads open to non-licensed motorized vehicles by approximately four miles. It would also prevent residents along those segments from accessing the forest roads directly from their properties with non-licensed vehicles.

This alternative could provide an access point from the Deer Valley subdivision to the Forest, if Deer Valley grants public easement to the access point. Forest Service policy discourages private access to public lands. If public access were granted through the subdivision, the access point would be on the east side of the subdivision connecting to the Black Draw road (NFSR 131).

There would be noise from motorized use in much of the landscape, with larger blocks of non-motorized use in the area north of the Baldy Loop, between the Baldy loop and the Moonlick road, south of the Ute Park Road, and south of the Bear Creek Trail. Because of the designated motorized trails, a non-motorized user would know where to expect motorized noise and could avoid these trails if they did not want to encounter motorized use. The state of Colorado passed a state law, effective in 2010 that requires most OHVs to meet sound limits of 96 decibels (*CRS 25-12-110*). As stated in the Design Criteria, page 16, the Columbine RD/FO would work with the State to enforce this rule throughout this landscape as well as across the District/Field Office.

Two new parking areas are proposed; one just west of the existing gate on the main Beaver Meadows Road (NFSR 135), approximately 2.5 miles from U.S. Highway 160; and the second one near the gate on the Sauls Creek Road, (NFSR 608). These would provide facilities for parking OHV and horse trailers and increase the use in these areas. By designating trails, providing maps, and parking areas the use would be expected to increase from the existing low to moderate to moderate to high.

Alternative 4

Alternative 4 would provide the most motorized opportunities for wheeled vehicles 50” or less in width with a total of 108 miles comprised of 52 miles of trails and 56 miles of roads. It provides for four miles of single track experience upon completion of the trail design, clearances and construction. In addition to the motorized trails in Alternative 3, it would provide additional motorized trails with the Devils Hole out and back; an additional three miles below the Bear Creek Road; and two miles out and back to Johns pond. Both Alternative 3 and 4 would help to meet the increased demand for motorized activities while reducing the resource impacts to vegetation, soils and wetlands that are occurring in the existing condition (Alternative 1).

This alternative would leave open three miles of the existing Ute Park Road (NFSR 133) and five miles of the Moonlick Road (NFSR 620) to all motorized vehicles. These two Forest Roads are currently recommended for 4x4 vehicles due to their rough condition and clearance issues and would remain so. The mileage of roads would increase for all motorized vehicles by eight miles when compared to Alternative 3, maintaining the current experience enjoyed by the 4x4 enthusiasts.

The Baldy Area Closure would no longer exist, decreasing the confusion to the public and making it easier to sign and enforce. It would not “quiet” down this area of the forest for the

non-motorized big game hunter during any of the hunting seasons; yet by not allowing the current cross-country travel by OHVs, a hunter would know where to expect to see and hear motorized users.

In La Plata County, OHVs and non-licensed motorized vehicles are not allowed on County Roads. This alternative proposes to put under easement to the County, the first 2.5 miles of the Beaver Meadows road (NFSR 135) and 1.9 miles of the Sauls Creek Road (NFSR 608). This transfer of rights would reduce the miles of roads open to non-licensed motorized vehicles by approximately four miles in Alternatives 3 & 4. It would also prevent residents along those segments from accessing the forest roads directly from their properties with non-licensed vehicles. The mixed use analysis recommendation would be adopted and would result in the same restriction.

The mixed use analysis done for the project area recommends closing the first 2.5 miles of the Beaver Meadows Road (NFSR 135) and the first 1.9 miles of the Sauls Creek Road (NFSR 608) to non-highway legal motorized vehicles. This recommendation was made due to the volume of traffic by residents that use these roads to access their private property. This would reduce the amount of roads open to non-licensed motorized vehicles by approximately four miles. It would also prevent residents along those segments from accessing the forest roads directly from their properties with non-licensed vehicles.

Enforcement of both Alternatives 3 and 4 would be somewhat less complicated than Alternative 2 because there would be a designated trail system, parking areas and informational signing. Alternatives 2, 3, and 4 all include components for public education concerning travel management, especially with the publication of the MVUM and new signing. Because of this, regulations would be clearer to the public and enforcement would be more straightforward.

This alternative would provide the opportunity for the private subdivisions of Deer Valley and Forest Lakes to work with the FS to provide public access at locations entering and/or exiting from the subdivisions. The first access point to Deer Valley would be the same as described in Alternative 3 and the second access point would be on the west side from Sawmill Circle (within the subdivision) to a designated trail. This would allow both the residents and public to have more than one option to access public lands. The Forest Lakes subdivision would need to provide public parking and access to the National Forest. This access point would be located on the east side of Phase III of the subdivision. Because the roads within the developed portions of the subdivision are considered County Roads, which do not allow unlicensed motorized vehicles, residents would also need a parking lot facility.

There would be noise from motorized use in much of the landscape, with larger blocks of non-motorized use in the area north of the Baldy Loop, between the Baldy loop and the Moonlick road, south of the Ute Park Road, and south of the Bear Creek Trail. The amount of noise would be about the same in both Alternatives 3 and 4, and the least in Alternative 2. Because of the designated motorized trail system that would result from Alternatives 3 & 4, there would be more noise than currently exists. The motorized trail systems (with parking lots, maps and signs on the ground) would attract additional users that currently do not recreate in the Beaver Meadows/Sauls Creek areas increasing the amount of noise and number of encounters. However, the location of the designated motorized trails would be known and a non-motorized user could avoid these trails. The state of Colorado passed a state law, effective in 2010 that requires most OHVs to meet sound limits of 96 decibels (*CRS 25-12-110*). The design criteria would help to reduce noise throughout the landscape.

Three new parking areas are proposed; one just west of the existing gate on the main Beaver Meadows Road (NFSR 135), approximately 2.5 miles from U.S. Highway 160; the second one near the gate on the Sauls Creek Road, (NFSR 608); and the third one at the beginning of the Crowbar Road (NFSR 755). These would provide facilities for parking OHV and horse trailers and increase the use in these areas. By designating trails, providing maps, and parking areas the use would be expected to increase from the existing low to moderate to moderate to high.

CUMULATIVE IMPACTS

Past activities that have shaped the recreational opportunities within this landscape have been the logging activities beginning in the 1940's through the mid 1980's; the grazing of cattle since the early 1900's; the creation of the Piedra Area in 1993; and the Missionary Ridge Fire of 2002 that burned up to the boundary of this analysis area. The logged areas provided additional vehicle access for users that were not as widespread prior to their construction; and the adjoining Piedra Area (1993) provided for a primitive, non-motorized and non-mechanized recreation opportunities.

The Missionary Ridge Fire of 2002 had some negative effects to the businesses in the local area as forest users stayed away from the Columbine Ranger District/Field Office due to closures and drought weather conditions. In 2003, recreation visits began to return to normal.

Fuels reduction and prescribed burns have been ongoing management actions within this landscape and except for temporary disturbances to camping, hunting, driving for pleasure and firewood gathering; these management actions have not generally impacted the National Forest visitor.

Throughout time, the increase in the number of roads built for mainly timber production have taken an area of the Forest and increased the road densities and decreased the experience of the non-motorized users (hikers and horseback users). Also, the existing travel management designations ("C" & "D") have been in place since 1985 and have allowed for ATVs and motorcycles to travel cross-country provided no resource damage occurs. Through increased motorized use and greater numbers of people, these "open" areas were experiencing resource issues (erosion, loss of vegetation, increase of weeds) that should be lessened with the 2005 Travel Management Rule.

The gas development in the Sauls Creek area began in the early 1980's which improved the roads from natural surface, erosive two tracks to gravel roads. Also, at that time new roads were built. Again in 2007-08, new gas roads and well pads were built and have become part of the landscape in this area. These activities have impaired the experience for many OHV users, horseback riders, hikers, runners, and hunters. Some user-created motorized trails have become gravel roads decreasing the semi-primitive motorized experience. For the daily users, hunters, and occasional forest visitors; the gas development in the Sauls Creek area has increased noise, dust and traffic. In addition, the visual qualities of a forest environment have changed over time.

The cumulative impacts in the near future to the resources on National Forest lands will be less than they are currently due to the designation of all motorized uses to roads, trails and areas. With population increasing, the number of users to public lands in the future will add to congestion and a more "crowded" feeling, safety concerns and more regulations to maintain the natural ecosystems.

The proposal would impact a relatively small percentage of the total motorized recreational opportunity across the Columbine Ranger District and San Juan National Forest. Two landscapes on the District (the HD's and Lakes) have recently undergone Travel Management planning,

resulting in a designation of motorized roads and trails and eliminating cross-country motorized travel (*SJNF 2007, SJNF 2009*).

Wildlife – Threatened and Endangered Species

AFFECTED ENVIRONMENT

A Biological Assessment (BA) was conducted for this travel management project. The purpose of a BA is to evaluate the potential effects from the proposed changes in travel management regulations in the Beaver Meadows-Sauls Creek Landscape to federally listed threatened or endangered fish and wildlife species, species proposed for federal listing, and critical habitat for listed species as designated by the U.S. Fish and Wildlife Service (USFWS). The BA addressed those listed species and/or their critical habitat that are known to occur or have the potential to occur on the San Juan National Forest and/or BLM Field Office, or are known to occur downstream and have the potential to be affected by actions proposed to occur on San Juan Public Lands.

Analyzing and disclosing the effects of these proposed changes in travel management regulations to federally listed species is needed to comply with the Endangered Species Act (ESA) of 1973 (*16 U.S.C.1531 et seq.*), as amended; BLM manual 6840 direction for special status species management; the National Forest Management Act (NFMA) of 1976 (including FS Manual 2670 direction for threatened, endangered, and sensitive species management); and the National Environmental Policy Act (NEPA) of 1969 (*42 U.S.C.4321 et seq.*), as amended.

A BA is the means to review, analyze, and document the direct, indirect and cumulative effects to federally listed species, species proposed for federal listing, or designated critical habitat for listed species. The full BA for this project can be found in the project record (*Schultz 2010a*). The section below summarizes the findings of the BA.

Federally listed species addressed in the BA are from the most recent list received from the USFWS (*USDI 2009*). There are no species proposed for listing under Endangered Species Act, nor is there any designated critical habitat for any listed species in the Beaver Meadows-Sauls Creek Landscape.

Table 4. Federally Listed Species for the San Juan Public Lands

Species	Federal Status	Habitat Present In the Landscape?	Probability of Occurrence in the Landscape	Carried Forward for Further Analysis?	Project Effects Determination
Canada lynx	Threatened	Yes - mature spruce fir, cool-moist mixed-conifer, and willow - riparian areas; no linkage designated areas in the Landscape	High - animals documented to occur in the Landscape.	Yes, see discussion	May Effect, Not Likely to Adversely Affect
Mexican spotted owl	Threatened	No – no narrow rock-walled canyons with mixed-conifer	Low	No, dismissed from further evaluation.	No Effect
Southwestern willow flycatcher	Endangered	Yes – 2 patches of apparently suitable habitat occur in the Landscape	Low – birds not documented to occur during breeding season in or near the Landscape, but suitable habitat is present	Yes, see discussion.	No Effect
Bonytail	Endangered	No - does not occur in or downstream of Pine or Piedra Rivers	Low – no water depletions from the San Juan River basin	No, dismissed from further evaluation.	No Effect

Species	Federal Status	Habitat Present In the Landscape?	Probability of Occurrence in the Landscape	Carried Forward for Further Analysis?	Project Effects Determination
Colorado pikeminnow	Endangered	No – does not occur in Pine or Piedra Rivers	Low – no water depletions from the San Juan River basin	No, dismissed from further evaluation.	No Effect
Humpback chub	Endangered	No - does not occur in or downstream of Pine or Piedra Rivers	Low – no water depletions from the San Juan River basin	No, dismissed from further evaluation.	No Effect
Razorback sucker	Endangered	No – does not occur in Pine or Piedra Rivers	Low – no water depletions from the San Juan River basin	No, dismissed from further evaluation.	No Effect
Greenback cutthroat trout	Threatened	No – does not occur in Pine or Piedra Rivers	Low	No, dismissed from further evaluation.	No Effect
Uncompahgre fritillary butterfly	Endangered	No – no alpine snow willow habitat in Landscape, Landscape too low elevation.	Low	No, dismissed from further evaluation.	No Effect

There are nine species listed as threatened or endangered that have the potential to occur or be affected by projects on the Columbine Ranger District and BLM Field Office. Seven of these species do not have habitat in the Beaver Meadows-Sauls Creek Landscape and are not affected by the proposed actions; Mexican spotted owl, Uncompahgre fritillary butterfly, razorback sucker, bonytail, Colorado pikeminnow, humpback chub, and greenback cutthroat trout. For this reason, these seven species were dropped from further evaluation and the effects determination for each of these seven species was "no effect."

To better assess the indirect effects motor vehicle use may have on wildlife in the Beaver Meadows-Sauls Creek Landscape, a ¼ mile buffer was placed around all roads and motorized trails in the landscape. This buffer is intended to represent that area where disturbance of wildlife by motor vehicles may be most pronounced. It is recognized that within this ¼ mile buffer, wildlife response to motor vehicles is likely to be strongest in close proximity to travel corridors, and less at greater distances away from travel corridors. The road or trail and buffer together are intended to represent the corridor within which motor vehicles may cause disturbance to wildlife, thereby indirectly potentially affecting wildlife distribution and/or use of otherwise suitable habitats. Some reduction in habitat effectiveness within the corridor is expected, especially in close proximity to roads and trails. Areas outside the corridor are intended to represent areas where there would be less likelihood of disturbance and/or the intensity of disturbance would be less, but some degree of disturbance may still occur.

ENVIRONMENTAL CONSEQUENCES

The Canada lynx and southwestern willow flycatcher are the only federally listed species with suitable habitat in the Beaver Meadows-Sauls Creek Landscape. They were carried forward for additional analysis. Information on the habitat requirements, status, distribution, abundance, threats, and key habitat components of these species is included in the BA and will not be reviewed here.

There are no records of southwestern willow flycatchers occurring in the Beaver Meadows-Sauls Creek Landscape. A single site with four patches of potential flycatcher habitat was located in 2006 along Beaver Creek. These four patches are scattered along a distance of 0.7 miles of creek bed. The total area of the four patches combined is 3.3 acres. Southwestern willow flycatcher surveys were conducted to USFWS protocol standard by certified surveyors during the 2006 and 2007 breeding seasons. No flycatchers were detected during these surveys and therefore the

habitat patch is considered to be vacant. A riparian evaluation was done in 2006 just downstream from the flycatcher habitat patch. This reach of Beaver Creek was rated to be in "Proper Functioning Condition," the highest of the three possible ratings. The flycatcher habitat patch is located in a relatively deeply incised portion of the Beaver Creek canyon. Although it is in an area that is open to cross country motorized travel there is no evidence of OHV use along the reach where the habitat patch is located.

There is a total of about 24,014 acres of suitable lynx habitat in the landscape, of which about 11,261 acres (47%) within ¼ mile of a motorized road or trail and therefore potentially affected by motorized recreation. The landscape overlaps three Lynx Analysis Units (LAUs), the Bear Creek LAU, Devil Mountain LAU, and Upper Piedra River LAU. About 88% of the lynx habitat in the landscape occurs in the Upper Piedra River LAU, and only about 1.4% of the lynx habitat in this LAU is currently in an unsuitable condition. There is no lynx habitat in the landscape south of U.S. Highway 160.

It must be recognized that the largest blocks of core lynx habitat in the Beaver Meadows-Sauls Creek Landscape lie north of the Baldy Mountain area in a "B" management prescription and therefore are already closed to cross country motorized travel. None of the alternatives proposes new roads or trails through these areas of core lynx habitat. For this reason, most of the effects to lynx from the actions proposed in the various alternatives would occur around the periphery of lynx habitat or outside of the largest contiguous blocks of lynx habitat.

Alternative 1 - No Action

Alternative 1 does not meet the requirements of the Chief's 2005 Travel Management Rule and cannot be chosen; it is cited here only as a basis for comparison of the remaining alternatives.

Alternative 1 would not change effects to Canada lynx and southwestern willow flycatcher because in this alternative the current conditions of motorized use of the Beaver Meadows-Sauls Creek Landscape would remain unchanged. Areas currently open to cross country motorized travel would remain open to travel, and currently authorized and user-created trails would remain open to motorized traffic. Alternative 1 has a much higher potential for disturbance to lynx, compared to the other Alternatives, due to continued uncontrolled cross country motorized use and the potential loss of lynx habitat to new user-created routes. By definition, there is no potential for disturbance to flycatchers because the habitat patch has been found to be vacant. The physical location of the habitat patch makes loss of habitat to off road motorized travel unlikely.

Alternative 1 would likely cause a gradual incremental (and immeasurable) decline in habitat capability for lynx due to an expected continued increase in the number of motorized users on approved and user-created routes. This would likely result in a gradual incremental decrease in habitat effectiveness due to disturbance from continued cross country motorized travel and loss of habitat due to continued increases in user-created trails.

About 47% of the suitable lynx habitat in the landscape is within ¼ mile of a motorized travel road or trail and therefore potentially affected by motorized recreation. Therefore nearly half of suitable lynx habitat in the landscape is in an area where the potential for disturbance from motor vehicles and loss of habitat to unregulated cross country motorized travel is likely to be greatest.

Alternative 2

Alternative 2 would have both positive and negative effects on habitat for Canada lynx. This alternative would substantially reduce the potential disturbance effects to lynx from motorized travel in the Beaver Meadows-Sauls Creek Landscape, and substantially reduce the potential for

loss of habitat to new user-created trails, compared to Alternative 1. Removal of the "C", "D" and "E" management area designations that currently allow cross country motorized travel would substantially reduce the potential for noise disturbance from motorized vehicles traveling cross country. This alternative would prohibit cross country motorized travel, thereby reducing the potential for loss of lynx habitat to new user-created trails.

There would be negative effects to lynx because selecting Alternative 2 would continue to permit motorized travel on some designated roads and trails through lynx habitat thereby allowing the continued potential for disturbance to individual animals. Selection of Alternative 2 would be a substantial improvement over the current condition however, because the amount of suitable lynx habitat within ¼ mile of a motorized road or trail and potentially affected by motorized recreation would be reduced by about 35% (3,848 acres), compared to Alternative 1, the current condition. There would be a 35% reduction in the amount of lynx habitat with high potential for noise disturbance and habitat loss. Because no new motorized trails would be designated under this alternative, beyond currently existing trails, there would also be no increase in designated motorized trails elsewhere in lynx habitat.

Under Alternative 2, there would be a substantial reduction in the density of designated motorized trails in some lynx habitat areas, compared to current condition. There would be a 35% reduction compared to current condition in the overall amount of lynx habitat potentially affected by motorized travel. The reduction in density of designated motorized roads and trails would take place both within lynx core habitat areas as well as in peripherial lynx habitat areas. For these reasons, selecting Alternative 2 would be substantially beneficial for lynx, compared to the current condition (Alternative 1).

For southwestern willow flycatcher, selection of Alternative 2 would be neutral because the habitat patch has been found to be vacant and therefore there is no potential for disturbance. Because no evidence has been found of off road travel currently affecting flycatcher habitat, the prohibition of off road travel would provide no benefits to flycatcher habitat. Noise levels along the main Beaver Meadows Road are unlikely to change under Alternative 2 and therefore the potential for disturbance to individual flycatchers, if the patch were to become occupied, would remain unchanged.

Alternative 3

Alternative 3 would have both positive and negative effects on habitat for lynx. There would be negative effects to lynx because selecting Alternative 3 would continue to permit motorized travel on designated roads and trails through lynx habitat thereby allowing the continued potential for disturbance to individual animals. Selection of Alternative 3 would be an improvement over the current condition however, because the amount of suitable lynx habitat within ¼ mile of a motorized travel road or trail and potentially affected by motorized recreation would be reduced by about 14% (1,574 acres), compared to Alternative 1. There would be a 14% reduction in the amount of lynx habitat with high potential for noise disturbance and habitat loss. Because no new motorized trails would be created under this alternative, beyond currently existing trails, there would also be no increase in designated motorized trails elsewhere in lynx habitat.

This general improvement in lynx habitat conditions under Alternative 3 however, would be much less than under Alternative 2 (41%). Although there would be substantial amounts of lynx habitat protected by removal of authorization of cross country motorized travel, Alternative 3 would also designate a number of additional existing trails as motorized roads and trails through lynx habitat. None of these roads or trails would be authorized under Alternative 2. For Canada

lynx, the generally overall beneficial effects of selecting Alternative 3 would be considerably less than the benefits of selecting Alternative 2.

Under Alternative 3, there would be a substantial reduction in the density of designated motorized trails in some lynx habitat areas, compared to current condition. However, there would be only a 14% reduction compared to current condition in the overall amount of lynx habitat potentially affected by motorized travel. This is much less than under Alternative 2 (35% reduction). In addition, the reduction in density of designated motorized roads and trails would take place outside of core lynx habitat stands, and therefore the benefits to lynx would be less pronounced than if the reduction occurred in core habitat areas. For these reasons, selecting Alternative 3 would be less beneficial for lynx than selecting Alternative 2.

Overall for Canada lynx, selecting Alternative 3 would result in a 14% reduction in the amount of lynx habitat within ¼ mile of a designated road or trail. There would also be a reduction in the density of designated motorized roads and trails in some lynx habitat areas, but most of the reduction would occur outside of lynx habitat core areas. Under Alternative 3 there would be an increase of six weeks per season in the duration of motorized use of designated roads and trails, compared to Alternative 2. This is due to extending the existing Baldy Mountain motorized closure to 11 weeks long under Alternative 3, compared to its current length of five weeks under Alternative 2. Extending the length of the Baldy Mountain closure would be a substantial reduction in the amount of time each season motor vehicles would be allowed to travel designated trails through lynx habitat, compared to current condition, substantially benefiting lynx habitat. However, the greatest benefit to lynx and lynx habitat from selecting Alternative 3 would come from the prohibition of cross country travel, thereby preventing the expansion of user-created trails and limiting the potential for disturbance to animals seeking security in areas removed from designated travel corridors.

For southwestern willow flycatcher, selecting Alternative 3 would be neutral because the habitat patch has been found to be vacant and therefore there is no potential for disturbance. Because no evidence has been found of off road travel currently affecting flycatcher habitat, the prohibition of off road travel would provide no benefits to flycatcher habitat. Noise levels along the main Beaver Meadows Road are unlikely to change under Alternative 3 and therefore the potential for disturbance to individual flycatchers, if the patch were to become occupied, would remain unchanged.

Alternative 4

For Canada lynx, the generally overall beneficial effects of selecting Alternative 4 would be substantially less than selecting Alternative 2, and slightly less than selecting Alternative 3. Alternative 4 would have both positive and negative effects on habitat for lynx. There would be negative effects to lynx because selecting Alternative 4 would continue to permit motorized travel on designated roads and trails through lynx habitat thereby allowing the continued potential for disturbance to individual animals. Selection of Alternative 4 would be an improvement over the current condition however, because the amount of suitable lynx habitat within ¼ mile of a motorized travel road or trail and potentially affected by motorized recreation would be reduced by about 9% (1,025 acres), compared to Alternative 1. There would be a 9% reduction in the amount of lynx habitat with high potential for noise disturbance and habitat loss. Under Alternative 4 there would be a short new single track trail created in lynx habitat. For this reason, Alternative 4 would result in a slight increase in designated motorized trails elsewhere in lynx habitat. In spite of the addition of the new single track trail, overall there would be net

decrease in the amount of designated motorized roads and trails in lynx habitat, thereby being an overall benefit to lynx habitat conditions across the Landscape as a whole.

This general improvement in lynx habitat conditions (9% improvement) under Alternative 4 however, would be much less than under Alternative 2 (41% improvement), and slightly less than under Alternative 3 (14%). Although there would be substantial amounts of lynx habitat protected by removal of authorization of cross country motorized travel, Alternative 4 would also designate a number of additional existing routes as motorized trails through lynx habitat. None of these routes would be authorized under Alternative 2 but most would be authorized under Alternative 3. For Canada lynx, the generally overall beneficial effects of selecting Alternative 4 would be substantially less than the benefits of selecting Alternative 2 and slightly less than selecting Alternative 3.

Under Alternative 4, there would be some reduction in the density of designated motorized trails in some lynx habitat areas, compared to current condition. However, the reduction in density of designated motorized roads and trails would take place mostly outside of core lynx habitat stands, and therefore the benefits to lynx would be less pronounced than if the reduction occurred in core habitat areas. Because a few more trails would be designated in lynx habitat under Alternative 4 than Alternative 3, selecting Alternative 4 would be slightly less beneficial for lynx than selecting Alternative 3, and substantially less beneficial for lynx than selecting Alternative 2.

Overall, selecting Alternative 4 would result in a 9% reduction in the amount of lynx habitat within ¼ mile of a designated roads and trail. There would also be a slight reduction in the density of designated motorized roads and trails in some lynx habitat areas, but most of the reduction would occur outside of lynx core habitat areas. Under Alternative 4 there would be an increase of 11 weeks per season in the duration of motorized use of designated roads and trails, compared to Alternative 3. This is due to removal of the Baldy Mountain motorized closure under Alternative 4. This would be a substantial increase in the amount of time each season motor vehicles would be allowed to travel designated trails through lynx habitat, compared to Alternative 3, substantially reducing benefits to lynx habitat. The greatest benefit to lynx and lynx habitat from selecting Alternative 4 would come from the prohibition of cross country travel, thereby preventing the expansion of user-created trails and limiting the potential for disturbance to animals seeking security in areas removed from designated travel corridors.

For southwestern willow flycatcher, selecting Alternative 4 would be neutral because the habitat patch has been found to be vacant and therefore there is no potential for disturbance. Because no evidence has been found of off road travel currently affecting flycatcher habitat, the prohibition of off road travel under Alternative 4 would provide no benefits to flycatcher habitat. Noise levels along the main Beaver Meadows Road are unlikely to change under Alternative 4 and therefore the potential for disturbance to individual flycatchers, if the patch were to become occupied, would remain unchanged.

CUMULATIVE IMPACTS

The Beaver Meadows-Sauls Creek Landscape contains very little lynx habitat (about 100 acres) in non-federal ownership. None of these private lands have reasonably foreseeable future developments or projects that would result in the loss of lynx habitat. For this reason, no cumulative effects, as they are defined by the Endangered Species Act, are expected in this landscape.

Cumulative effects, as they are defined by the NEPA, may come from a variety of sources on both federal and non-federal lands. The Columbine Ranger District evaluated the effects of grazing on a portion of the Beaver Meadows-Sauls Creek Landscape in the Beaver Meadows – HDs Range Rescission project. A separate area of the Beaver Meadows-Sauls Creek Landscape was evaluated in the Missionary Ridge – Lakes Range Rescission project. The effects determination for both projects concluded that cattle grazing "may affect but is not likely to adversely affect" lynx or lynx habitat in each project area. The effects from both projects were determined to be insignificant and discountable.

Travel management projects, such as this proposal, will occur until the entire Columbine District is in conformance with the Chief of the Forest Service's directive to designate all motorized travel on roads and trails and specific areas, versus the current scheme of regulating motorized travel by areas. Consequently, all other landscapes where cross country motorized travel is permitted on the Columbine Ranger District will be evaluated in the near future. It can be expected that some minor losses of lynx habitat could occur as a result of those projects, but these minor losses of habitat would be offset by substantial decreases in disturbance due to the prohibition of uncontrolled cross country motorized travel, and the gradual reclamation of unauthorized and undesignated user-created routes through lynx habitat. The only other travel management landscape on the Columbine Ranger District for which a decision has been made is immediately adjacent to this landscape to the west, the Lakes Travel Management Landscape. The Lakes Travel Management project resulted in a permanent loss of 3.8 acres of lynx habitat and an 18,582 acre reduction in the amount of lynx habitat affected by motorized travel. There were no effects to flycatcher habitat. For these reasons, the proposed alternatives for the Beaver Meadows-Sauls Creek Landscape are expected to have only small and generally insignificant cumulative effects to lynx and flycatcher habitat.

Wildlife – Sensitive Species

AFFECTED ENVIRONMENT

Forest Service Manual (FSM) 2670 requires reviews of all Forest Service planned, funded, executed or permitted programs and activities for possible effects to Forest Service designated sensitive fish and wildlife species. The process used to evaluate the effects agency activities and programs may have on designated sensitive species is in accordance with the standards established in 50 CFR 402.12, and Forest Service Manual Direction (*FSM 2671.2 and FSM 2672.4*). U.S. Forest Service Region 2 sensitive species are designated by the Regional Forester of the Rocky Mountain Region. BLM policy designates sensitive species to ensure these species receive full consideration in the NEPA process (*BLM 6840 Manual Direction, Release 6-121*). BLM sensitive species are designated by the Colorado State Director.

A Biological Evaluation (BE) was conducted to analyze the impacts of alternatives to designated sensitive species following agency direction (*Schultz 2010b*). The BE lists the species designated as Sensitive by the BLM in the state of Colorado and by the FS Rocky Mountain Regional Forester that are known to occur, may occur, or have habitat on BLM or FS lands managed by the San Juan Public Lands Center. The BE also provides a summary of how the proposed action might affect each species and their key habitat components, and affect/impact determinations for each species. Specific project affects or impacts are discussed in more detail for those species with habitat present in the landscape and that are likely to be affected (positively or negatively) by the action alternatives. Details of the analysis leading to the summary can be found in the project record.

Two species, yellow-billed cuckoo and New Mexico meadow jumping mouse, are also candidates for listing under the federal Endangered Species Act. Information on the habitat requirements, status, distribution, abundance and key habitat components of BLM and USFS designated Sensitive Species is on file at the Columbine Public Lands office in Bayfield, Colorado and will not be reviewed here.

ENVIRONMENTAL CONSEQUENCES

Of the 36 species currently designated as Sensitive by the Regional Forester in the Rocky Mountain Region and that have the potential to occur on the San Juan National Forest, 20 have habitat in the Beaver Meadows-Sauls Creek Travel Management Landscape, and 15 may be affected by motorized travel. A total of 21 Forest Service sensitive species would not be affected by the action alternatives because their habitats do not occur in the landscape or their key habitat components are not affected by motorized travel in the landscape.

Of the 25 species currently designated as Sensitive by the BLM Colorado State Director and that have the potential to occur on lands managed by the San Juan Field Office, 10 have habitat in the Beaver Meadows-Sauls Creek Travel Management Landscape, and 8 may be affected by motorized travel. A total of 17 BLM sensitive species would not be affected by the action alternatives because their habitats do not occur in the landscape or their key habitat components are not affected by motorized travel in the landscape.

There are a total of 15 species designated by one or both federal agencies as sensitive that have habitat in the project area and may be affected by the action alternatives. None of these species would be affected to the extent that it would cause a trend toward federal listing or loss of viability in the planning area.

The remaining 30 species either do not have suitable habitat in the Beaver Meadows-Sauls Creek Landscape, are not known to occur in the landscape, do not regularly breed in or use the landscape, or occur only irregularly and unexpectedly, often outside of habitat associations' characteristic of the species. For these reasons, these 31 species will not be evaluated further and the affect of selecting any of the action alternatives on these 31 species is "no effect".

There will be "no impact" from any of the project alternatives for 21 Forest Service designated Sensitive species, and limited impacts to individuals of the remaining 15 sensitive species. There is no habitat in the project area for 17 designated sensitive species (American bittern, black swift, boreal toad, Colorado River cutthroat trout, desert bighorn sheep, ferruginous hawk, Gunnison's prairie dog, loggerhead shrike, North American wolverine, northern harrier, northern river otter, purple martin, Rocky Mountain bighorn sheep, short-eared owl, western yellow-billed cuckoo, western burrowing owl, and white-tailed ptarmigan). Although there is breeding and/or foraging habitat in the project area for 2 sensitive species (American peregrine falcon and bald eagle), motorized use does not currently have a measurable affect on those habitats and affects would not appreciably change under any of the action alternatives.

The 15 species brought forward for detailed analysis for this motorized travel management project include: Allen's big-eared bat, American marten, American three-toed woodpecker, big free-tailed bat, boreal owl, Brewer's sparrow, flammulated owl, fringed myotis, Lewis's woodpecker, loggerhead shrike, northern goshawk, olive-sided flycatcher, spotted bat, Townsend's big-eared bat, and Yuma myotis. For each of these species, selecting any of the proposed action alternatives would result in a determination of "may adversely impact individuals but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability rangewide."

Because selecting any of the action alternatives would result in a reduction from current condition in the amount of habitat affected by motorized travel, habitat conditions for sensitive species would, on balance, improve for all sensitive species with the selection of any action alternative. Because habitat conditions would be expected to improve in the landscape under any action alternative, selecting any alternative would maintain viability of all species across the planning area.

The amount of improvement in habitat conditions for sensitive species varies greatly among the action alternatives and individual species (Table 5, below). Some species have relatively large amounts of habitat in the landscape with much of the habitat in areas directly or indirectly affected by motorized use. Other species have relatively little habitat in the landscape with much habitat already in non-motorized areas. Species associated with sagebrush habitats have relatively little habitat in the landscape and much is near motorized roads and trails thus there is high potential for direct and indirect effects from motorized travel.

Table 5. Percent Non-motorized Habitat for Sensitive Species in the Landscape.

	Alternative			
Species	**1**	**2**	**3**	**4**
Allen's Big-eared Bat	41%	71%	55%	53%
American Marten	56%	74%	64%	62%
American Three-toed Woodpecker	56%	74%	64%	62%
Big Free-tailed Bat	41%	71%	55%	53%.
Boreal Owl	63%	71%	67%	67%
Brewer's Sparrow	19%	44%	39%	26%
Flammulated owl	46%	72%	59%	56%
Fringed Myotis	41%	71%	55%	53%
Lewis's Woodpecker	41%	71%	56%	54%
Loggerhead Shrike	19%	44%	39%	26%
Northern Goshawk	49%	71%	60%	58%
Olive-sided Flycatcher	37%	73%	55%	52%
Spotted Bat	41%	71%	55%	53%
Townsend's Big-eared Bat	41%	71%	55%.	53%
Yuma Myotis	41%	71%	55%	53%
Average Change from Current Condition		+25.9% from Alt 1	+13.4% from Alt 1	+9.9% from Alt 1
Average % of Habitat Non-motorized	42.1%	68.0%	53.3%	52.1%

For BLM designated sensitive species, there will be little change in habitat conditions from this travel management decision. Because there will be no road or trails designated on BLM lands in the landscape under any of the project alternatives, there will be "no impact" to any BLM designated sensitive species regardless of which proposed action alternative is selected. BLM lands in the landscape currently have only one popular user-created trail but receive little off-road travel, except during the early big game hunting seasons. For this reason this project will not appreciably change the travel management status on BLM lands and therefore there will be little change in habitat conditions for BLM designated sensitive species from this project.

Direct and Indirect Effects

The direct and indirect effects of motorized travel on sensitive species vary greatly from species to species depending on their key habitat components, and can vary greatly depending on the intensity of motorized use in different parts of the landscape. Direct effects of motorized recreation on sensitive species include loss of key habitat components to tire trampling, new trail construction and trail reroutes, removal of standing dead trees that may pose safety hazards to trail users, and a risk, albeit relatively low, of animal mortality due to collisions with motor vehicles. It is difficult to accurately quantify the amount of habitat directly affected by loss or

degradation of key habitat components because not every acre is equally accessible to motor vehicles and cross country travel rarely occurs consistently across all acres of wildlife habitat. Motorized use tends to be concentrated in user-created travel corridors, but may be non-existent in nearby areas that have steeper terrain or denser understory vegetation.

Sensitive species that are closely associated with ground cover or density of understory vegetation (such as small mammals) are more likely to be suffer direct habitat loss or degradation from cross country motorized travel, compared to species associated with overstory trees (such as birds of prey) or that forage in flight (such as bats) and thus are unlikely to suffer direct habitat loss or degradation. Based on field experience in this landscape, most cross country motorized use tends to occur near existing roads or trails, especially in forested habitats. For this reason, the area within ¼ mile of existing roads and trails appears to provide a reasonable method for comparing among action alternatives the amount of habitat likely to be directly affected by habitat loss or degradation from cross country motorized travel.

Indirect effects are primarily related to motorized or human disturbance to otherwise secure resting, feeding and breeding individuals, potentially displacing individual animals to lower quality or less preferred habitats. Disturbance can be especially disruptive during some seasons of the year, such as in late winter on crucial winter range, or during the early breeding season when entire annual reproductive outputs can be lost due to relatively small disturbances. The intensity of disturbance from motorized vehicles varies substantially by season of year, time of day, and proximity to popular motorized routes. For this reason, it is difficult to accurately quantify the effect disturbance may have for a specific species. In addition, some species are inherently more sensitive to disturbance than other species, and within a species, some individuals are inherently more sensitive to disturbance than other individuals. Lacking a better method for comparing indirect effects to sensitive species across the three action alternatives, this analysis will use the amount of habitat within ¼ mile of a road or designated motorized trail as an indicator of the overall scale of disturbance for a particular species across the Landscape as a whole.

There are four primary direct and indirect effects of restricting motorized travel to a series of designated roads and trails: 1) reduced likelihood of habitat loss or degradation from cross country motorized travel (direct effect); 2) natural recovery and revegetation of user-created routes not designated open to motorized travel, improving habitat connectivity and restoring blocks of habitat formerly fragmented by motorized trails (direct effect); 3) reduced density of designated motorized trails through core wildlife habitats, reducing the likelihood of disturbance to individual animals and thereby increasing security within habitat blocks that are greater than ¼ mile from designated roads and trails (indirect effect); 4) reduced density of designated motorized trails, thereby reducing the intensity of disturbance in blocks of habitat that remain within ¼ mile of designated motorized trails (indirect effect).

Although there is expected to be a reduction in the amount and intensity of disturbance to animals away from trails, there is also expected to be an increase in motorized traffic on most designated trails due to the requirement for users to remain on designated roads and trails rather than being allowed to disperse across large open areas. Over the past 10 years there has been a substantial increase in the total amount of motorized recreation in the Beaver Meadows-Sauls Creek Landscape (see Recreation section of this EA), similar to trends on NFS lands nation-wide. This trend is expected to continue for the foreseeable future. As the number of motorized users increases over time, the likelihood of disturbance to sensitive species will also continue to increase. For these reasons, there is likely to be a continued gradual increase in the amount and intensity of disturbance near (within ¼ mile) designated roads and trails. The amount of increase

in numbers of motorized users on designated trails is unknown but likely to be relatively small on an annual basis and therefore the annual impact on wildlife is also likely to be small. In addition, the increase in user volume along trails is likely to be substantially mitigated by limiting motorized use to designated roads and trails only and removing the possibility of cross country travel.

For most species, the amount of direct loss or degradation of key habitat components is likely to be small. This is because cross country motorized travel is generally dispersed across relatively large blocks of similar habitat. Unless multiple users follow the same tracks, creating new trails, the passage of a single vehicle is usually covered fairly quickly by growth of ground vegetation as the season progresses, except if the use occurs during the big game hunting seasons which is after the season's growth has ended. Vehicle tracks made during big game hunting seasons often last into the following spring.

For most species, the most important detrimental effect of motorized use are the indirect effects of disturbance from the presence of motor vehicles and riders in blocks of core habitat that otherwise would have provided secure sites for resting, breeding and feeding. As individual animals are displaced from preferred habitats, or forced to leave (temporarily or permanently) otherwise suitable habitats to avoid disturbance along heavily used OHV corridors, animal distribution, productivity and survival can be affected.

Because some designated roads and trails are user-created routes, there will be a need for minor local reroutes to mitigate or repair ongoing resource damage. As maintenance funding becomes available, these minor local reroutes may require site specific analyses for impacts to sensitive species' habitats. However, these reroutes are unlikely to result in net changes to sensitive species' habitat conditions because as new reroutes are opened old routes would simultaneously be closed.

The designation of motorized roads and trails, publication of motor vehicle use maps (MVUM), creation of improved parking facilities, improved signing of recreational opportunities, and improved marking of designated roads and trails are, together, likely to result in an increase over time in traffic volume along designated roads and trails. The amount of increase in traffic volume, or the time frame over which this increase would occur, is unknown and difficult to predict. However, the short sight distances and rough condition of most motorized trails would require riders to maintain relatively slow speeds. Adopting any of the action alternatives is unlikely to appreciably increase vehicle speeds or traffic volume above current conditions on designated trails or the improved gravel roads of the landscape.

Alternative 1 - No Action

Alternative 1 does not meet the requirements of the Chief's 2005 Travel Management Rule and cannot be chosen; it is cited here only as a basis for comparison of the remaining alternatives.

Alternative 1 would not change effects to sensitive species because in this alternative the current conditions of motorized use in the Beaver Meadows-Sauls Creek Landscape would remain unchanged. Areas currently open to cross country motorized travel would remain open to travel, and currently authorized and user-created trails would remain open to motorized traffic. Seasonal closures to motorized use would remain in effect in the Baldy Mountain area in the fall and in the Sauls Creek area during winter.

Alternative 1 has a much higher potential for disturbance to sensitive species, compared to the other Alternatives, because of continued uncontrolled cross country motorized use and the potential loss of key habitat components (such as standing snags, and motorized impacts in

wetland or riparian areas) to new user-created routes. Alternative 1 would likely cause a gradual incremental (and immeasurable) decline in habitat capability for sensitive species due to an expected continued incremental increase in the number of motorized users on approved and user-created routes. This continued incremental increase in the number of motorized users would likely result in a gradual incremental decrease in habitat effectiveness due to disturbance from continued cross country motorized travel and impacts (loss and/or modification) to key habitat components due to continued increases in user-created trails.

Alternative 2

For the 15 species affected by motorized travel in the Landscape, selecting Alternative 2 would result in the greatest improvement in habitat conditions for sensitive species. On average for all species combined, there would be about a 25.9% increase in the amount of habitat for sensitive species in non-motorized areas, compared to the current condition. This compares to about a 13.4% increase under Alternative 3, and about a 9.9% increase under Alternative 4. Selecting Alternative 2 would result in an average of about 68% of the habitat for each species occurring in areas not directly or indirectly affected by motorized travel. This compares to an average of about 53.3% of habitat under Alternative 3, and 52.1% of habitat under Alternative 4 occurring in areas not directly or indirectly affected by motorized travel.

Alternative 2 would be wholly beneficial to sensitive species because there would be no new construction of single track trails, little reconstruction or improvement along OHV trails, and no construction of new parking/staging areas along the existing road network. The linear distance of roads and trails open to motorized use would drop by 62% compared to Alternative 1 (162 miles under Alt. 1 versus 62 miles under Alt. 2) and be limited mostly to the existing primary road network. Most existing user-created trails would re-vegetate over the near term (5 – 10 years) and long term (greater than 10 years) thereby improving habitat conditions for sensitive wildlife species in the future. There would be a substantial reduction in the number and length of trails open to motorized use in the Sauls Creek area, compared to under Alternative 1, thereby improving habitat conditions for sensitive wildlife in this heavily used area. The Baldy Mountain closure period would be expanded to include the later part of August and the month of September, thereby providing additional protection from motorized use disturbance to sensitive species using this area in late summer and early fall.

Selecting Alternative 2 would substantially reduce the potential disturbance effects from motorized travel in the Beaver Meadows-Sauls Creek Landscape. It would also substantially reduce the potential for loss of habitat to new user-created trails, compared to Alternative 1. Removal of the “C”, “D” and “E” management area designations that currently allow cross country motorized travel would substantially reduce the potential for noise disturbance from motorized vehicles in areas that were formerly open to cross country motorized travel.

Because motorized travel would be limited to the existing road network only, there would be little risk of increase in user-created trails and therefore little risk of loss and/or impacts to key habitat components for sensitive species, such as standing snags, large-diameter down woody debris, seasonal wetlands, and mountain grasslands. Because disturbance from motorized traffic would be limited to the existing road network, disturbance would be more predictable to wildlife in location, time of day and distribution of vehicles across the landscape, as well as more concentrated in existing corridors.

Alternative 3

Selecting Alternative 3 would be, on balance, beneficial for sensitive species that occur in the Landscape, but the degree of benefit would be substantially less than under Alternative 2. There

would be on average about a 13.4% improvement in habitat conditions for sensitive species under Alternative 3, compared to the current condition under Alternative 1. There would be an average of about 53.3% of the habitat for sensitive species occurring in non-motorized areas.

Selecting Alternative 3 would have both positive and negative effects for sensitive species. Although there would be additional areas protected from motorized use disturbance by removing authorization for cross country motorized travel, Alternative 3 when compared to Alternative 2 would substantially increase the number of trail miles open to motorized use (7 miles under Alternative 2 versus 52 miles under Alternative 3). Alternative 3 would substantially increase the number of miles of roads and motorized trails combined (98 miles) compared to Alternative 2 (62 miles), but would be less than under Alternative 4 (105 miles). The number of miles of roads and motorized trails combined under Alternative 3 would however, be 40% less than under the current condition (Alternative 1).

Under Alternative 3 there would be some minor trail reconstruction, realignment, and treadway improvement work required before some designated trail segments would be opened for motorized use. This trail work would result in some minor losses or displacement of habitat for sensitive wildlife species and increase disturbance to individual animals during the construction season. New parking/staging areas would be constructed along the Beaver Meadows Road and Sauls Creek Road, resulting in minor permanent losses of habitat for some sensitive species.

Compared to Alternative 2, Alternative 3 would designate substantial additional trail miles for motorized use in the Baldy Mountain area, the Sauls Creek area, along the Bear Creek Trail, the Jungle Canyon and Uncle Charlie areas, and a new single track motorcycle trail between the High Point and Bear Creek Roads. None of these routes would be authorized under Alternative 2. For nearly all sensitive species, the generally overall beneficial effects of selecting Alternative 3 would be considerably less than the larger and wholly beneficial effects of selecting Alternative 2.

There would be some beneficial effects to sensitive species for selecting Alternative 3, compared to Alternative 1. There would be somewhat reduced disturbance along the Jungle Canyon Road and portions of the Ute Park Road due to limiting traffic to vehicles less than 50 inches wide and prohibiting travel by full-sized vehicles. The Baldy Mountain closure period would be expanded to include the later part of August and the month of September, thereby providing additional protection from disturbance due to motorized use to sensitive species using this area in late summer and early fall.

Alternative 4

The overall generally beneficial effects to sensitive species of selecting Alternative 4 would be substantially less than the much larger and wholly beneficial effects of selecting Alternative 2, and would be somewhat less that the generally beneficial effects of selecting Alternative 3. There would be on average about a 9.9% improvement in habitat conditions for sensitive species under Alternative 4 compared to the current condition under Alternative 1, with an average of about 52.1% of the habitat for sensitive species occurring in non-motorized areas.

Selecting Alternative 4 would have both positive and negative effects for sensitive species. Although there would be additional areas protected from motorized use disturbance by removing authorization for cross country motorized travel, Alternative 4 would substantially increase the number of trail miles open to motorized use (48 miles) compared to Alternative 2 (7 miles), and be somewhat less than under Alternative 3 (52 miles). Alternative 4 would substantially increase the number of miles of roads and motorized trails combined (105 miles) compared to Alternative 2 (62 miles) and Alternative 3 (98 miles). The number of miles of roads and motorized trails

combined under Alternative 4 would however, be 35% less than under the current condition (Alternative 1).

There would be some minor trail reconstruction, realignment, and treadway improvement work required before some designated trail segments would be opened for motorized use. This trail work would result in some minor losses or displacement of habitat for sensitive wildlife species and increase disturbance to individual animals during the construction season. New parking/staging areas would be constructed along the Beaver Meadows Road and Sauls Creek Road, resulting in minor permanent losses of habitat for some sensitive species. The Baldy Mountain seasonal closure period would be entirely removed, allowing season long motorized disturbance to sensitive species in this area.

Compared to Alternative 2 and Alternative 3, Alternative 4 would designate some additional trail miles for motorized use in the Sauls Creek area, the Bear Creek Loop, the Beaver Slope Road, and a new out and back trail to the ponds in Devil's Hole. None of these routes would be authorized under Alternative 2 or 3. Under Alternative 4, the Jungle Canyon Road and portions of the Ute Park Road would be opened to full size vehicle traffic, thereby probably somewhat increasing traffic volumes and potential disturbance to sensitive wildlife, compared to Alternative 3. For nearly all sensitive species, the generally overall beneficial effects of selecting Alternative 4 would be considerably less than the much larger and wholly beneficial effects of selecting Alternative 2, and would be somewhat less than the generally beneficial effects of selecting Alternative 3.

CUMULATIVE IMPACTS

There has been a substantial increase in the amount and distribution of motorized use in the Sauls Creek area over past 10 - 20 years. Along with that increased use, a growing network of user-created trails has developed and has likely caused incremental declines in habitat effectiveness for sensitive wildlife species. The increased popularity of motorized recreation experienced over the past 10 – 20 years is likely to continue in this area for the foreseeable future. Over this same time period the Sauls Creek area has experienced an ever increasing network of coal bed methane well pad access roads, along with associated increases in field development traffic that accesses the area year round. This year round maintenance and field development activity has also contributed to continued gradual declines in habitat capability and effectiveness for sensitive species in this area.

There has also been continued expansion and increased density of residential housing scattered among and around Federal lands in the Beaver Meadows and Sauls Creek areas. Continued residential development in the wildland urban interface will likely contribute to continued gradual reductions in habitat capability and effectiveness for some sensitive wildlife species in some areas. As the town of Bayfield has grown and expanded over the past 20 years, the number of non-motorized recreationists using nearby public lands has also grown, contributing to incremental increases in disturbance and likely incremental losses of key habitat attributes for some sensitive species.

Federal lands in the Beaver Meadows-Sauls Creek Landscape have had a long standing history of active resource utilization and management including timber harvests, more recent fuels reduction projects, and controlled burns. Annual harvesting of standing snags for personal use firewood in the Sauls Creek area over past 20 – 40 years has resulted in very low snag densities, reducing habitat capability for some sensitive species. Beginning in 2008 in the Sauls Creek portion of the Landscape it was prohibited to harvest any standing dead ponderosa pine, regardless of diameter size. Also beginning in 2008 in the Beaver Meadows portion of the

Landscape, it was prohibited to harvest standing dead ponderosa pine trees greater than 15 inches DBH. These two prohibitions together do much to protect existing habitat for snag dependant sensitive species. The Beaver Meadows area is designated primarily as a timber management prescription area and has had a long standing and extensive history of forest management activities. Recent episodes of sudden aspen decline, drought, and insect outbreaks have also affected some portions of the landscape and altered habitat conditions for sensitive species.

Wildlife – Management Indicator Species

AFFECTED ENVIRONMENT

The San Juan National Forest Land and Resource Management Plan (*SJNF 1992*) establishes management direction for Management Indicator Species (MIS). The BLM has no policies or direction to address MIS so the following discussion will address only those species listed in the Forest Plan, and only where those species occur on National Forest System lands.

Forest Plan direction for MIS addresses maintaining healthy populations of wildlife and fish species. Due to the large number of species that occupy National Forest System lands, a subset of species is identified for analysis purposes that are intended to represent the full range of species. This subset is collectively referred to as Management Indicator Species. The Forest Plan establishes goals, objectives, standards, guidelines, and monitoring requirements that are specific to MIS. Each action proposed by the agency is analyzed in a manner that discloses its effects to MIS and evaluates its consistency with the management direction contained in the Forest Plan. The analysis then determines what effect project-level impacts might have on Forest-level population and habitat trends for each MIS.

This analysis is based on the best available science such as the most recent Forest-wide habitat and individual MIS assessments, expert professional opinions, and site-specific field review of the analysis area. These assessments explain the reasons for MIS selection in the Forest Plan, and contain information on the species life history, conservation status, distribution, abundance on Forest and each Ranger District, and population and habitat trends.

This analysis meets the current MIS analysis requirements in the San Juan National Forest Land and Resource Management Plan. The current Forest Plan does not rely solely on gathering/using quantitative population data, but specifically allows for the use of a variety of species information and data sources that can be used to conduct the MIS analysis. Table IV-1 on page IV-4 of the Forest Plan lists a variety of acceptable analysis data sources for monitoring populations and habitat trends of MIS, such as, population estimates by State Wildlife agencies, professional judgment of USFS Wildlife Biologists, habitat inventory assessments, resource information system data, and activity/program reviews. All MIS identified in the Forest Plan and reasons for their selection are considered during initial project screening. A detailed analysis was then conducted for those MIS that may be affected by the proposed action. The analysis describes how the proposed action will affect Forest-wide habitat and population trends.

A detailed analysis is intended to disclose the potential effects of the action on MIS and their habitats in a manner that identifies the relationship between the action being considered and the long-term viability of the MIS on the National Forest. For this analysis, the “effects of the action” include the direct and indirect effects to the species caused by the proposed project, and are effects that are reasonably certain to occur. “Reasonably certain to occur” requires existence of clear and convincing information that establishes an effect to the MIS will be caused by the proposed action. This requires that a cause and effect relationship be established that is not

merely speculative or based on remote possibilities. Principals of population ecology using the concept of species limiting factors as they relate to reproduction, growth, mortality rates, and distribution of MIS are applied whenever possible.

Most MIS analyzed in detail have either been observed or reported in the Beaver Meadows-Sauls Creek Landscape. Additionally, most MIS have habitat that is well distributed across the San Juan National Forest, with the exception of Colorado River cutthroat trout and Uncompahgre fritillary butterfly. It should also be noted that within and adjacent to the Beaver Meadows-Sauls Creek Landscape there are large amounts of habitat in similar condition, and this habitat is well distributed across the Landscape and connected to the larger National Forest administrative unit. The Beaver Meadows-Sauls Creek Landscape does not provide unique or isolated habitats within which discrete populations are restricted. Aside from Canada lynx and southwestern willow flycatcher, most MIS are not species at risk nor are they species that are trending towards protected status and are well distributed across the San Juan National Forest.

For some species, such as mule deer and elk, there appears to be no relationship between habitat trends and population trends, with population trends regulated by State hunting season structures. For other species, such as Canada lynx and river otter, population trends are dependant primarily on State reintroduction efforts, rather than the amount or distribution of habitat on National Forest System lands. For other species, such as deer mouse, populations are highly variable and regulated primarily by local annual weather patterns, rather than the amount of distribution of habitat. Again, MIS regulations do not apply to non-National Forest System lands and thus this analysis will be limited solely to those species and acres of habitat that occur on National Forest System lands.

ENVIRONMENTAL CONSEQUENCES

A detailed Wildlife Review was conducted to analyze the impacts of alternatives to MIS (*Schultz 2010c*). The following sections summarize the results of this detailed Wildlife Review. The full Wildlife Review is available in the project record. There are 23 species identified as MIS in the Forest Plan. Some species are not present in the Beaver Meadows-Sauls Creek Landscape due to the absence of suitable habitat, or suitable habitat is present in the Landscape but the proposed action (motorized travel over ground) will not affect the species or its key habitat components. The following Table 6 lists the MIS for the SJNF.

Table 6. MIS Preferred Habitats, Forest-Wide Trends, and Affects.

MIS	Preferred Habitat	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Abert's squirrel	Ponderosa pine; habitat and population trends stable	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
American beaver	Aquatic, riparian, and aspen; habitat and population trends upward	No Effects	No Effects	No Effects	No Effects
American marten	Spruce-fir and cool moist mixed conifer; habitat and population trends stable	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends

MIS	Preferred Habitat	Alternative 1	Alternative 2	Alternative 3	Alternative 4
black bear	All forested types, grassland, riparian, mountain shrub/Gambel oak, aspen, and piñon-juniper; habitat trend stable, population trend slight downward on east side of SJNF, slight upward on west side	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
brook trout	Aquatic; habitat and population trends are decreasing	No Effects	No Effects	No Effects	No Effects
brown trout	Aquatic; habitat and population trends are decreasing	No Effects	No Effects	No Effects	No Effects
Canada lynx	Mixed conifer, spruce-fir and aspen; habitat trends are stable, population trends are upward	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
Colorado river cutthroat trout	Aquatic; habitat and population trends are decreasing	No Effects	No Effects	No Effects	No Effects
Columbian sharp-tailed grouse	Mountain shrublands; habitat trend is stable, there is no population trend	No Effects	No Effects	No Effects	No Effects
deer mouse	All terrestrial habitats except alpine; habitat and population trends are variable	No Effects	No Effects	No Effects	No Effects
elk	All terrestrial habitats; pine, piñon-juniper, and mountain shrub/Gambel oak in the winter; habitat trend is slight downward, population trend is stable	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
green-tailed towhee	Mountain shrub/Gambel oak, piñon-juniper, pine/oak sagebrush and riparian; habitat trend is slight upward, population trend is stable	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
hairy woodpecker	All forested types, aspen, and piñon-juniper; habitat trend is slight upward, population trend is stable	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
mallard	Aquatic and riparian; habitat and population trends are stable to slight upward	No Effects	No Effects	No Effects	No Effects
Merriam's turkey	Grasslands, riparian, mountain shrub/Gambel oak, aspen, piñon-juniper, ponderosa pine and mixed conifer; habitat trend is stable, population trend is upward	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
Mexican spotted owl	Mature ponderosa pine and mixed confer in canyons; habitat trend is stable, there is no population trend	No Effects	No Effects	No Effects	No Effects

MIS	Preferred Habitat	Alternative 1	Alternative 2	Alternative 3	Alternative 4
mountain bluebird	Cavity nester in alpine, aspen, mixed conifer, mountain shrub/Gambel oak, piñon-juniper, ponderosa pine, and mixed conifer; habitat and population trends are stable	No Effects	No Effects	Would not measurably alter the forest-wide population or habitat trend	Would not measurably alter the forest-wide population or habitat trend
mule deer	All terrestrial habitats; pine, piñon-juniper, and mountain shrub/Gambel oak in the winter; habitat trend is downward, population trend is stable	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
northern goshawk	Generalists that use mature forest habitats for nesting; habitat trend is stable to slight upward, population trend is stable to slight downward	No Effects	No Effects	Would not measurably alter forest-wide habitat or population trends	Would not measurably alter forest-wide habitat or population trends
northern river otter	Aquatic and riparian; habitat trend is stable, population trend is upward	No Effects	No Effects	No Effects	No Effects
rainbow trout	Aquatic; habitat and population trends are decreasing	No Effects	No Effects	No Effects	No Effects
southwestern willow flycatcher	Willow and riparian; habitat trend is stable, there is no population trend	No Effects	No Effects	No Effects	No Effects
Uncompahgre fritillary butterfly	Snow willow in alpine; habitat and population trends are stable	No Effects	No Effects	No Effects	No Effects

Of the 23 MIS in the Forest Plan, 11 species have habitat in the Beaver Meadows-Sauls Creek Landscape and were brought forward for detailed analysis (Abert's squirrel, American marten, black bear, Canada lynx, elk, green-tailed towhee, hairy woodpecker, Merriam's turkey, mountain bluebird, mule deer, and northern goshawk). For all 11 species, the affects of the proposed action alternatives would be too small to cause detectable changes in habitat or population trends for any species at the scale of the entire San Juan National Forest. Affects to these 11 species are discussed below. Eleven other species were found to have no habitat in the Landscape (Colorado River cutthroat trout, Columbian sharp-tailed grouse, Mexican spotted owl, northern river otter, Uncompahgre fritillary butterfly), or their key habitat components would not be affected by the proposed action alternatives (American beaver, brown trout, brook trout, mallard, rainbow trout, and southwestern willow flycatcher). One additional species, the deer mouse, has habitat in the project area but affects of the proposed action alternatives would be far less than annual variation due to local weather conditions.

Because selecting any of the action alternatives would result in a reduction from current condition in the amount of habitat affected by motorized travel, habitat conditions for MIS would, on balance, improve with the selection of any action alternative. Although habitat conditions would be expected to improve in the Landscape under any of the action alternatives, changes in the amount of habitat resulting from this decision would be too small to be detectable at the Forest-wide scale. For this reason, selecting any of the action alternatives would not affect Forest-wide habitat or population trends for any MIS.

Direct and Indirect Effects

The direct and indirect effects of motorized travel on MIS vary greatly from species to species depending on their key habitat components, and can vary greatly depending on the intensity of motorized use in different areas on the landscape. Direct effects of motorized recreation on MIS include loss of key habitat components to tire trampling, new trail construction and trail reroutes, removal of standing dead trees that may pose safety hazards to trail users, and a risk, albeit relatively low, of mortality of individual animals due to collisions with motor vehicles. Indirect effects are primarily related to disturbance from motor vehicles or humans to otherwise secure resting, feeding and breeding individuals, potentially displacing individual animals to lower quality or less preferred habitats. Disturbance can be especially disruptive during some seasons of the year, such as in late winter on crucial winter range, or during the early breeding season when entire annual reproductive outputs can be lost due to relatively small disturbances.

Indirect effects relate primarily to disturbance of individual animals using habitats near motorized roads and trails. Disturbance would be caused by the presence motor vehicles and by human activity in the area, facilitated by the presence of a motorized road or trail. Selecting any of the action alternatives would reduce the length of designated motorized roads and trails from the current condition; a substantial reduction under Alternative 2 and smaller reductions under Alternatives 3 and 4. Because the length of designated roads and trails would be reduced from current condition under all action alternatives, the amount of habitat within ¼ mile of a designated road or trail would also be reduced from current condition under all action alternatives, reducing the amount of disturbed habitat. Perhaps equally important, under all action alternatives there also would be a reduction in the density of motorized roads and trails within areas near motorized roads and trails. Because the density of designated motorized roads and trails would be reduced in areas with motorized roads and trails, there would also likely be a reduction in the intensity of disturbance to animals using the area around motorized roads and trails. This reduction in road and trail density would be substantial under Alternative 2, less pronounced under Alternative 3 and 4 but none the less a reduction from current condition and therefore beneficial to wildlife. For these reasons, adopting any of the action alternatives would result in reduced disturbance to wildlife from two mechanisms; first a reduction in the number of miles of designated roads and trails reducing the amount of habitat near a motorized road or trail, and second a reduction in the density of motorized roads and trails in a given area reducing the intensity of disturbance in areas near designated roads or trails.

There are four primary direct and indirect effects of restricting motorized travel to a series of designated roads and trails: 1) reduced likelihood of habitat loss or degradation from cross country motorized travel (direct effect); 2) natural recovery and revegetation of user-created routes that are not designated for motorized travel, thereby improving habitat connectivity and restoring blocks of habitat formerly fragmented by motorized trails (direct effect); 3) reduced length of designated motorized roads and trails through important wildlife habitats, thereby reducing the likelihood of disturbance to individual animals because more habitat blocks would be greater than ¼ mile from designated roads and trails (indirect effect); 4) reduced density of designated motorized trails, thereby reducing the intensity of disturbance in blocks of habitat that remain within ¼ mile of designated motorized trails (indirect effect).

For most MIS, the most important detrimental effect of motorized use are the indirect effects of disturbance from the presence of motor vehicles and riders in blocks of core habitat that otherwise would have provided secure sites for resting, breeding and feeding. As individual animals are displaced from preferred habitats, or forced to leave (temporarily or permanently)

otherwise suitable habitats to avoid disturbance along heavily used OHV corridors, animal distribution, productivity and survival can be affected.

Forest Plan Consistency

The Forest Plan designates management areas across the Forest. The Beaver Meadows-Sauls Creek Landscape is located primarily in management areas 6B (domestic livestock grazing) and 7E (timber production). Together, these two management areas comprise about 88% of the Beaver Meadows-Sauls Creek Landscape. Smaller areas are in management areas 2B (roaded recreation; about 5% of landscape), 3A (non-motorized recreation; about 2% of landscape), 4B (management indicator species; about 2% of landscape), and 5B (big game winter range; about 2% of landscape). Forest Plan standards and guidelines specific to management of MIS habitats and applicable to the proposed action vary by management area and are listed in the Forest Plan.

The Forest Plan standard of maintaining habitat capability for MIS at 40% of capability in management area 02B, 03A, and 07E polygons is currently being met across the landscape. The standard of maintaining 60% of capability in management area 6B polygons is also currently being met. Selecting any action alternative would likely improve habitat conditions for MIS by reducing the potential for disturbance from motorized use and reducing the potential for loss of key habitat components due to expansion of user-created trails. However, this habitat improvement is unlikely to be measurable or detectable at the Forest-wide scale. For this reason, Forest-wide habitat and population trends are not likely to be affected by the selection of any action alternative. Selecting any action alternative is likely to improve habitat conditions for MIS, thereby continuing to meet Forest Plan direction for management of MIS habitats in the landscape. Selecting any action alternative is unlikely to alter habitat conditions for MIS in a way that is measurable or detectable at the Forest-wide scale or have a detectible effect on Forest-wide habitat or population trends for any MIS.

The State's population goals for commonly hunted MIS species are currently being met or exceeded in the Data Analysis Unit in which the landscape is located. The action alternatives would improve security conditions for commonly hunted MIS species and therefore the 90% habitat effectiveness standard and the 80% habitat capability standard in the 5B management area would be met. The seasonal closure to pubic motorized access currently in effect in the Sauls Creek area would remain in effect, providing security areas for wintering big game animals.

There are 6 Management Areas in the landscape, of which 5 have Forest Plan direction for maximum road density. Under the current condition, the landscape substantially exceeds plan direction for maximum road density in 4 of the 5 Management Areas (2B, 4B, 5B, and 6B), and barely meets plan direction for road density in the remaining Management Area (7E). Adopting any of the action alternatives would be substantially beneficial to MIS because there would be substantial reductions in the density of motorized travel in Management Areas emphasizing MIS habitats. In Management Area 4B (MIS emphasis) the density of roads and trails would be reduced by 62% under Alternatives 2, 3 and 4. In Management Area 5B (big game winter range emphasis) the density of roads and trails would be reduced by 73% under Alternatives 2 and 3, and reduced by 64% under Alternative 4.

Selecting Alternative 2 would meet plan direction for road density in all 5 management areas that have direction for road density, including in Management Areas 4B and 5B. Selecting Alternative 2 would reduce overall road density in the Landscape by 65% from current condition, meeting Forest Plan direction for big game habitat effectiveness in all Management Areas. Selecting Alternative 3 would reduce overall road density in the landscape by 48% from

current condition, meeting plan direction in 4 out of 5 Management Areas. Plan direction for road density would not be met in Management Areas 6B. Selecting Alternative 4 would reduce overall road density in the landscape by 42% from current condition, meeting plan direction in 3 out of 5 Management Areas. Plan direction for road density would not be met in Management Areas 2B and 6B.

The intent of the 1983 Forest Plan road density guidelines is to provide habitat sufficient to meet the State's (CDOW) population goals for elk and deer. The State's population goals for elk and deer are currently being met or exceeded in the Data Analysis Unit in which the Beaver Meadows-Sauls Creek Landscape is located. Implementing any of the action alternatives will improve habitat conditions for elk and deer by reducing the density of motorized roads and trails. Because the State's population goals are being met and habitat conditions would be improved, selecting Alternative 3 is consistent with the intent of the road density guideline for Management Area 6B, and selecting Alternative 4 is consistent with the intent of the road density guideline for Management Area 2B and 6B.

Selecting any of the action alternatives is likely to reduce the risk of loss and/or impacts to key habitat components for MIS, such as standing snags, large-diameter down woody debris, seasonal wetlands, and mountain grasslands. For all the reasons, the proposed action is consistent with all applicable Forest Plan direction for MIS. Therefore, selecting any of the action alternatives is not expected to result in negative consequences to MIS populations or habitats from the standpoint of affecting viability at the Forest-wide scale.

Alternative 1 - No Action

Alternative 1 would have no effect on Forest-wide habitat or population trends for any of the 11 species with habitat in the proposed project area. This alternative would be a continuation of the existing motorized use conditions in the Beaver Meadows-Sauls Creek Landscape. Areas open to motorized travel would remain open, and currently authorized and user-created trails would continue to be used and/or expanded. Because off-road and off-trail motorized use would still be permitted across the landscape, potential for disturbance to MIS away from authorized roads and trails would remain, and unintentional loss of key habitat components for MIS would continue to be possible. Seasonal closures to motorized use would remain in effect in the Baldy Mountain area in the fall and in the Sauls Creek area during winter. This alternative does not meet the intent of the Chief's 2005 Travel Management Rule and is cited here only as a basis for comparison of the alternatives.

Alternative 1 has a much higher potential for disturbance to MIS, compared to the other alternatives, because of continued uncontrolled cross country motorized use and the potential loss of key habitat components (such as standing snags, and motorized impacts in wetland or riparian areas) to new user-created routes. Alternative 1 would likely cause a gradual incremental (and immeasurable) decline in habitat capability for MIS due to an expected continued incremental increase in the number of motorized users on all roads and trails and in most areas. This continued incremental increase in the number of motorized users would likely result in a gradual incremental decrease in habitat effectiveness due to disturbance from continued cross country motorized travel and impacts (loss and/or modification) to key habitat components due to continued increases in user-created trails.

Alternative 2

For the 11 MIS potentially affected by motorized travel in the landscape, selecting Alternative 2 would result in the greatest improvement in habitat conditions. On average for all species combined, there would be about a 23.9% reduction in the amount of MIS habitat in areas within

¼ mile of a designated road or trail, compared to the current condition. This compares to about a 12.5% reduction under Alternative 3, and about a 10.2% reduction under Alternative 4. Selecting Alternative 2 would result in an average of about 29.9% of the habitat for MIS occurring in areas within ¼ mile of a designated road or trail and therefore potentially affected by motorized travel. This compares to an average of about 41.3% of habitat under Alternative 3, and 43.6% of habitat under Alternative 4 occurring in areas not directly or indirectly affected by motorized travel.

Selecting Alternative 2 would result in a 63% reduction in the density of motorized roads and trails across the landscape. This compares to a 37% reduction under Alternative 3, and a 32% reduction under Alternative 4. The density of motorized roads and trails under Alternative 2 would be 0.7 miles per square mile, compared to 1.9 miles per square mile under the current condition (Alternative 1). This compares to a density of 1.2 miles per square mile under Alternative 3, and 1.3 miles per square mile under Alternative 4.

For the 11 MIS potentially affected by motorized travel in the landscape, selecting Alternative 2 would result in the greatest improvement in habitat conditions and greatest benefits for MIS. Alternative 2 would be wholly beneficial to MIS because there would be no new construction of single track trails, little reconstruction or improvement along OHV trails, and no construction of new parking/staging areas along the existing road network. The linear distance of roads and trails open to motorized use would drop by 62% compared to Alternative 1 (162 miles under Alt. 1 versus 62 miles under Alt. 2) and be limited mostly to the existing primary road network. Most existing user-created trails would re-vegetate over the short term (5 – 10 years) thereby providing long term (greater than 10 years) improvements in habitat conditions for MIS. There would be a substantial reduction in the number and length of trails open to motorized use in the Sauls Creek area, compared to Alternative 1, thereby improving habitat conditions for MIS in this heavily used area. The seasonal closure to public motorized use currently in effect in the Sauls Creek area would remain in effect, continuing to provide security areas for wintering big game animals. The Baldy Mountain closure period would be expanded to include the later part of August and the month of September, thereby providing additional protection from motorized use disturbance to MIS using this area in late summer and early fall.

Selecting Alternative 2 would substantially reduce the potential disturbance effects from cross-country motorized travel in the Beaver Meadows-Sauls Creek Landscape. It would also substantially reduce the potential for loss of habitat to new user-created trails, compared to Alternative 1. Removal of the "C", "D" and "E" management area designations that currently allow cross country motorized travel would substantially reduce the potential for noise disturbance from motorized vehicles in areas that were formerly open to cross country motorized travel.

Because motorized travel would be limited mostly to the existing road network, there would be little risk of increase in user-created trails and therefore little risk of loss and/or impacts to key habitat components for MIS, such as standing snags, large-diameter down woody debris, seasonal wetlands, and mountain grasslands. Because disturbance from motorized traffic would be limited mostly to the existing road network, disturbance would be more predictable to wildlife in location, time of day and distribution of vehicles across the landscape, as well as more concentrated in existing road corridors.

Population trends for elk and mule deer are controlled by annual hunter harvest and do not appear to be correlated with the amount of available habitat on the Forest. Canada lynx populations in the San Juan Mountains have been primarily influenced by years of releases of

translocated animals by the Colorado Division of Wildlife. The slight habitat improvements resulting from changes in travel management regulations in the Beaver Meadows-Sauls Creek Landscape are unlikely to cause measurable changes in the amount of suitable lynx habitat or lynx populations at the scale of the entire San Juan National Forest. The slight habitat improvements for American marten, black bear and hairy woodpecker from selecting Alternative 2 are unlikely to cause measurable changes in the amount of habitat or populations at the scale of the entire San Juan National Forest. Changes in habitat capability for mountain bluebird and green-tailed towhee are likely to be very small in comparison to the relatively large amounts of habitat available for these species at the Forest-wide scale. Both species are widespread across the Forest and population trends and habitat trends are stable to slightly upward. Selecting Alternative 2 is unlikely to have a measurable impact on habitat or populations trends for either species at the Forest-wide scale.

Alternative 3

Selecting Alternative 3 would be, on balance, beneficial for MIS that occur in the landscape, but the degree of benefit would be substantially less than under Alternative 2. On average for all species combined, there would be about a 12.5% reduction in the amount of MIS habitat in areas within ¼ mile of a designated road or trail, compared to the current condition. This compares to about a 23.9% reduction under Alternative 2, and about a 10.2% reduction under Alternative 4. Selecting Alternative 3 would result in an average of about 41.3% of the habitat for MIS occurring in areas within ¼ mile of a designated road or trail and therefore potentially affected by motorized travel. This compares to an average of about 29.9% of habitat under Alternative 2, and 43.6% of habitat under Alternative 4 occurring in areas not directly or indirectly affected by motorized travel. Selecting Alternative 3 would result in a 37% reduction in the density of motorized roads and trails across the landscape. This compares to a 63% reduction under Alternative 2, and a 32% reduction under Alternative 4.

Selecting Alternative 3 would have both positive and negative effects for MIS. Although there would be additional areas protected from motorized disturbance by removing authorization for cross country motorized travel, Alternative 3 when compared to Alternative 2, would substantially increase the number of trail miles open to motorized use (7 miles under Alternative 2 versus 52 miles under Alternative 3). Alternative 3 would substantially increase the number of miles of roads and motorized trails combined (98 miles) compared to Alternative 2 (62 miles), but would be less than under Alternative 4 (105 miles). The number of miles of roads and motorized trails combined under Alternative 3 would be 40% less than under the current condition (Alternative 1).

Compared to Alternative 2, selecting Alternative 3 would substantially increase the density of motorized roads and trails in the landscape (0.7 miles per square mile under Alternative 2 versus 1.2 miles per square mile under Alternative 3). The density of motorized roads and trails under Alternative 3 would be 37% less than under the current condition (Alternative 1), but would be 26% more than Alternative 2.

Under Alternative 3 there would be some minor trail reconstruction, realignment, and treadway improvement work required before some designated trail segments would be opened for motorized use. This trail work would result in some minor losses or displacement of habitat for sensitive wildlife species and increase disturbance to individual animals during the construction season. New parking/staging areas would be constructed along the Beaver Meadows Road and Sauls Creek Road, resulting in minor permanent losses of habitat for some sensitive species.

Compared to Alternative 2, Alternative 3 would designate substantial additional trail miles for motorized use in the Baldy Mountain area, the Sauls Creek area, along the Bear Creek Trail, the Jungle Canyon and Uncle Charlie areas, and a new single track motorcycle trail between the High Point and Bear Creek Roads. None of these roads and trails would be authorized under Alternative 2. For these reasons and for all MIS, the generally overall beneficial effects of selecting Alternative 3 would be considerably less than the larger and wholly beneficial effects of selecting Alternative 2.

There would be some beneficial effects to MIS for selecting Alternative 3, compared to Alternative 1. There would be somewhat reduced disturbance along the Jungle Canyon Road and portions of the Ute Park Road due to limiting traffic to vehicles less than 50 inches wide and prohibiting travel by full-sized vehicles. The Baldy Mountain closure period would be expanded to include the later part of August and the month of September, thereby providing additional protection from disturbance due to motorized use to MIS using this area in late summer and early fall. The seasonal closure currently in effect in the Sauls Creek area would remain in effect, providing security areas for wintering big game animals.

Alternative 4

The overall generally beneficial effects to MIS of selecting Alternative 4 would be substantially less than the much larger and wholly beneficial effects of selecting Alternative 2, and would be somewhat less that the generally beneficial effects of selecting Alternative 3. On average for all species combined, there would be about a 10.2% reduction in the amount of MIS habitat in areas within ¼ mile of a designated road or trail, compared to the current condition. This compares to about a 23.9% reduction under Alternative 2, and about a 12.5% reduction under Alternative 3. Selecting Alternative 4 would result in an average of about 43.6% of the habitat for MIS occurring in areas within ¼ mile of a designated road or trail and therefore potentially affected by motorized travel. This compares to an average of about 29.9% of habitat under Alternative 2, and 41.3% of habitat under Alternative 3 occurring in areas not directly or indirectly affected by motorized travel. Selecting Alternative 4 would result in a 32% reduction in the density of motorized roads and trails across the landscape. This compares to a 63% reduction under Alternative 2, and a 37% reduction under Alternative 3.

Selecting Alternative 4 would have both positive and negative effects for MIS. Although there would be additional areas protected from motorized use disturbance by removing authorization for cross country motorized travel, Alternative 4 would substantially increase the number of trail miles open to motorized use (48 miles) compared to Alternative 2 (7 miles), but be somewhat less than under Alternative 3 (52 miles). Alternative 4 would substantially increase the number of miles of roads and motorized trails combined (105 miles) compared to Alternative 2 (62 miles) and Alternative 3 (98 miles). The number of miles of roads and motorized trails combined under Alternative 4 would be 35% less than under the current condition (Alternative 1).

Compared to Alternative 3, selecting Alternative 4 would slightly increase the density of motorized roads and trails in the landscape (1.2 miles per square mile under Alternative 3 versus 1.3 miles per square mile under Alternative 4). The density of motorized roads and trails under Alternative 4 would be 32% less than under the current condition (Alternative 1), but would be 5% more than Alternative 3.

Under Alternative 4 there would be some minor trail reconstruction, realignment, and treadway improvement work required before some designated trail segments would be opened for motorized use. This trail work would result in some minor losses of habitat and possible

displacement of individual animals, and increased disturbance to MIS during the construction season. New parking/staging areas would be constructed along the Beaver Meadows Road and Sauls Creek Road, resulting in minor permanent losses of habitat for some MIS. The Baldy Mountain seasonal closure period would be entirely removed, allowing motorized disturbance to affect MIS in this area season long. The seasonal closure period currently in effect in the Sauls Creek area would remain in effect, providing security areas for wintering big game animals.

Compared to Alternative 2 and Alternative 3, Alternative 4 would designate some additional trail miles for motorized use in the Sauls Creek area, the Bear Creek Loop, the Beaver Slope Road, and a new out and back trail to the ponds in Devil's Hole. None of these roads or trails would be authorized under Alternative 2 or 3. Under Alternative 4, the Jungle Canyon Road and portions of the Ute Park Road would remain open to full size vehicle traffic (similar to current condition), thereby probably slightly increasing traffic volumes and potential disturbance to MIS compared to Alternative 3. For nearly all MIS, the generally overall beneficial effects of selecting Alternative 4 would be considerably less than the much larger and wholly beneficial effects of selecting Alternative 2, and would be somewhat less than the generally beneficial effects of selecting Alternative 3. The reduced benefits of selecting Alternative 4, compared to Alternative 3, would be due to increased disturbance due to designating 7 more miles of roads and trails open to motorized travel, some of which would involve new trail construction and therefore also create minor but permanent losses of habitat for some MIS.

CUMULATIVE IMPACTS

Habitat for MIS has been modified and reduced through human activities such as timber harvest and associated road building, livestock grazing, fire suppression, recreation, and development in or near the project area. Current and foreseeable activities in or near the project area include fuels treatments, livestock grazing, recreational, and continued development on adjacent private lands. These disturbances have and will continue to affect habitats for sensitive species by changing stand structures and compositions, affecting habitat suitability, and altering the numbers of individuals that the available habitat can support.

In general, historic timber harvests (early 1900's) in accessible ponderosa pine stands removed most of the large, pre-settlement trees and snags. During the same period, high levels of livestock grazing and fire suppression led to the reduction of the frequent, low intensity fires that burned in the area. Gambel oak became dominant in the understory of many stands due to timber harvest, fire suppression and heavy livestock grazing. Commercial harvests of merchantable ponderosa pine continued at a much reduced scale and intensity through the 1980s, with few commercial timber sales since then.

Fire suppression, in addition to timber harvest, has further homogenized ponderosa pine forest structural conditions, reducing the value of forest stands for many sensitive species that are associated with complex habitats. Furthermore, fire suppression has placed remaining high value habitats at greater risk from high intensity stand replacing fires. Several past and proposed future fuel reduction projects have been analyzed and/or implemented in the landscape in the recent past, thereby helping to reduce the adverse affects of fire suppression by stand homogeneity and increasing habitat complexity, and protecting important habitats for sensitive species.

There has been a substantial increase in the amount and distribution of motorized use in the Beaver Meadows-Sauls Creek Landscape over past 10 - 20 years. Along with that increased use, a growing network of user-created trails has developed and has likely caused incremental declines in habitat effectiveness for MIS. The increased popularity of motorized recreation experienced over the past 10 – 20 years is likely to continue for the foreseeable future. Over this

same time period the Sauls Creek portion of the landscape has experienced an ever increasing network of coal bed methane well pads, access roads, and utility corridors, along with associated increases in field service traffic that accesses the area year round. This year round maintenance and field development activity has also contributed to continued gradual declines in habitat capability and effectiveness for sensitive species in this area.

There has also been continued expansion and increased density of residential housing scattered among and around Federal lands in the Beaver Meadows and Sauls Creek portions of the landscape. Continued residential development in the wildland urban interface will likely contribute to continued gradual reductions in habitat capability and effectiveness for some MIS in some areas. As the town of Bayfield has grown and expanded over the past 20 years, the number of non-motorized recreationists using nearby public lands has also grown, contributing to incremental increases in disturbance and likely incremental losses of key habitat attributes for some MIS.

Federal lands in the Beaver Meadows-Sauls Creek Landscape have had a long standing history of active resource utilization and management including timber harvests, more recent fuels reduction projects, and controlled burns. Annual harvesting of standing snags for personal use firewood in the Sauls Creek portion of the landscape over past 20 – 40 years has resulted in very low snag densities, reducing habitat capability for some MIS. Beginning in 2008 in the Beaver Meadows portion of the landscape, it was prohibited to harvest standing dead ponderosa pine trees greater than 15 inches DBH. Also beginning in 2008 in the Sauls Creek portion of the landscape it was prohibited to harvest any standing dead ponderosa pine, regardless of diameter size. These two prohibitions together do much to maintain existing habitat conditions for snag dependant MIS. The Beaver Meadows area is designated primarily as a timber management prescription area and has had a long standing and extensive history of forest management activities. Recent episodes of sudden aspen decline, drought, and insect outbreaks have also affected some portions of the landscape and altered habitat conditions for some MIS.

Sagebrush habitat is perhaps the habitat that has been most heavily modified from its condition prior to European settlement. Sagebrush is an important habitat for some MIS, such as mule deer on winter grounds. The Northern San Juan Basin Coal Bed Methane project, along with oil and gas development on surrounding non-federal lands, will contribute to a continued slight decline in the amount and extent of sagebrush habitat in and around the Landscape. The Coal Bed Methane project estimated that oil and gas development alone would impact about 7% of sagebrush habitat in the cumulative effects analysis area (*SJNF 2007*). For this reason, projects affecting sagebrush habitats in the Sauls Creek area adopt design criteria intended to reduce the loss or adverse modification of sagebrush habitat or long term create long term improvements in sagebrush condition and extent.

Wildlife – Migratory Birds

AFFECTED ENVIRONMENT

An Executive Order titled responsibilities of federal agencies to protect migratory birds was enacted in 2001 (*EO 13186*). The order requires federal agencies to consider the effect of land management projects on migratory birds, particularly those species for which there may be conservation concern. Agencies are to “restore and enhance the habitat of migratory birds, as practicable” and to “evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.” There is conservation concern for some species of migratory

birds due to naturally small ranges, loss of habitat, observed population declines, and other factors.

This analysis focuses on migratory bird species that have been identified as candidates for conservation priority by at least one of the following lists: the Endangered Species Act (addressed in the Biological Assessment), BLM's Colorado State Sensitive Species List (addressed in the Biological Evaluation), the Forest Service Rocky Mountain Regional Forester's Sensitive Species List (addressed in the Biological Evaluation), the U.S. Fish and Wildlife Service's Birds of Conservation Concern list (*USFWS 2002*), the Colorado Division of Wildlife's Colorado Listing of Endangered, Threatened and Wildlife Species of Special Concern (*CDOW 2007*).

This section reviews likely potential effects of the project alternatives on migratory bird species for which there may be conservation concern and that are thought likely to occur in the Beaver Meadows-Sauls Creek Landscape. More detailed information on the habitat requirements, status, distribution, abundance and key habitat components of most species is on file at the Columbine Public Lands Center office in Bayfield, Colorado and will not be reviewed here.

Of the 55 bird species of concern identified on one of these lists, 31 species have breeding and/or non-breeding habitats in the Beaver Meadows-Sauls Creek Landscape. Of the 31 species that may occur in the landscape, 23 species are likely to occur only during the breeding season, and 8 species occur in the analysis area year round. The 31 bird species of concern that are likely to occur in the landscape are grouped into 8 general analysis categories based on life history requirements or the habitats where the species is most commonly found in the landscape.

The eight general analysis categories are:

1) Cavity constructors (American three-toed woodpecker, hairy woodpecker, Lewis' woodpecker, red-naped sapsucker, Williamson's sapsucker),
2) Cavity dependant (boreal owl, flammulated owl, mountain bluebird, violet-green swallow),
3) Mixed-conifer (broad-tailed hummingbird, dusky grouse, Hammond's flycatcher, olive-sided flycatcher),
4) Mountain shrub (green-tailed towhee, Virginia's warbler),
5) Piñon-juniper woodland (black-throated gray warbler, piñon jay),
6) Ponderosa pine (band-tailed pigeon, Grace's warbler, Merriam's turkey, northern goshawk),
7) Riparian/Wetlands (American dipper, bald eagle, cordilleran flycatcher, lazuli bunting, MacGillivray's warbler, mallard, southwestern willow flycatcher, Wilson's warbler),
8) Sagebrush shrublands (Brewer's sparrow, loggerhead shrike).

It should be noted that some birds (such as Williamson's sapsucker and northern goshawk) nest and forage in a wide variety of habitat types across the landscape. Other species (such as violet-green swallow) nest in one habitat type (tree cavities) but forage in another quite different habitat type (open areas). Also, some species that breed in the landscape (such as olive-sided flycatcher and Wilson's warbler) leave in late summer for other, generally remote, wintering areas (Central and South America). Other species however, are found in the landscape year round (such as hairy woodpecker and piñon jay).

ENVIRONMENTAL CONSEQUENCES

Because selecting any of the action alternatives would result in a reduction from current condition in the amount of habitat affected by motorized travel, habitat conditions for migratory birds would, on balance, improve with the selection of any action alternative. Habitat conditions for migratory birds would be expected to improve in the landscape under any action alternative (Alternatives 2, 3 and 4) because cross country motorized travel would be prohibited, thereby limiting disturbance from motorized vehicles to smaller areas adjacent to designated motorized roads and trails. However, this anticipated improvement in habitat conditions for migratory birds is unlikely to be of sufficient magnitude to result in increases in overall bird populations for any analysis group or for any single bird species. Selecting any of the action alternatives is likely to reduce the risk of loss and/or impacts due to expansion of user-created trails to key habitat components for migratory birds, such as standing snags, large-diameter down woody debris, seasonal wetlands, and mountain grasslands.

For migratory birds on BLM lands, there will be little change in habitat conditions from this travel management decision. Because there would be no roads and trails designated on BLM lands in the landscape under any of the project alternatives, there would be little change in habitat conditions for migratory birds on BLM lands regardless of which proposed action alternative is selected. BLM lands in the landscape currently receive little off-road motorized travel. For this reason this project would not appreciably change the travel management status on BLM lands and therefore there would be little change in habitat conditions for migratory birds on BLM lands from this proposal.

Direct and Indirect Effects

The direct and indirect effects of motorized travel on migratory birds vary greatly from species to species depending on their key habitat components, and can vary greatly depending across the landscape depending on the intensity of motorized use in different parts of the landscape. Direct effects of motorized recreation on migratory bird analysis groups and individual bird species include loss of key habitat components to tire trampling, new trail construction and trail reroutes, removal of standing dead trees that may pose safety hazards to trail users, creation and extension of user-created trails, and a risk, albeit relatively low, of mortality due to collisions with motor vehicles. Indirect effects are primarily related to motorized or human disturbance to otherwise secure resting, feeding and breeding individuals, potentially displacing individual birds to lower quality or less preferred habitats. Disturbance can be especially disruptive during some seasons of the year, such as during the early breeding season when entire annual reproductive outputs can be lost due to relatively small disturbances.

Birds in the cavity constructor group (woodpeckers) depend on standing dead trees or green trees with heartwood decay in which to construct their nesting cavities. Cavities are constructed each spring, used for that breeding season only, then abandoned. For this reason, standing dead and diseased trees are their most critical habitat component. Standing dead and diseased trees are often considered hazards to human safety and therefore removed from close proximity to motorized roads and trails. The cavity constructor group tends, as a group, to be relatively sensitive to disturbance, especially during the late nestling period. The Sauls Creek seasonal closure overlaps most of the early nesting period of the species in this group, thereby providing some protection from disturbance early in the breeding cycle.

Birds in the cavity-dependant group require a cavity to nest in but cannot construct the nest cavity themselves, thereby depending on the cavity constructor group for their nesting sites. Because abandoned cavities in standing dead trees are relatively rare, there is often intense

competition among members of the cavity-dependant group for the use of existing cavities. For this reason, it is not uncommon for several bird species to occupy adjacent cavities in the same standing dead tree simultaneously. These "hotel" trees are both relatively rare on the landscape and very important to migratory birds. Because of the relative large diameter and tall stature of most "hotel" trees, they are often removed as hazard trees or lost to personal use firewood harvesting when in close proximity to motorized roads and trails.

Federal lands in the Beaver Meadows-Sauls Creek Landscape have had a long standing history of active resource utilization and management including timber harvests, more recent fuels reduction projects, and controlled burns. Annual harvesting of standing snags for personal use firewood in the Sauls Creek portion of the landscape over past 20 – 40 years has resulted in very low snag densities, reducing habitat capability for birds in the cavity constructor and cavity-dependant groups. Beginning in 2008 in the Beaver Meadows portion of the landscape, it was prohibited to harvest standing dead ponderosa pine trees greater than 15 inches DBH. Also beginning in 2008 in the Sauls Creek portion of the landscape it was prohibited to harvest any standing dead ponderosa pine, regardless of diameter size. These two prohibitions together do much to maintain existing habitat conditions for birds in the cavity constructor and cavity-dependant groups. These changes in firewood harvesting policy probably provide greater protection of existing snag habitat than do changes in travel management regulations under any of the action alternatives.

Birds in the mixed-conifer analysis group mostly nest in the foliage of live conifer trees or on the ground in conifer dominated forests. Few green trees are generally lost to trail construction or maintenance activities, compared to the large number of trees available in the landscape. For this reason, the primary impact of motorized use on this analysis group is disturbance during the breeding season.

The two bird species in the mountain shrub analysis group nest on or near the ground in dense shrub thickets. Loss of shrubs to trail clearing and maintenance activities results in the permanent loss of small amounts of breeding and foraging habitat for both species. The well developed stature of shrubs preferred for nesting and foraging by both species is closely associated with forest openings and moist locations that also tend to be preferred routes for motorized travel and trail construction. For this reason, motorized travel usually results in a permanent loss of small amounts of habitat for these species, as well as disturbance to preferred breeding and foraging areas.

The two bird species in the piñon-juniper woodland analysis group are found primarily in the Sauls Creek portion of the landscape. The relatively high concentration of roads and user-created motorized trails in the Sauls Creek area causes relatively larger human impacts within the habitats preferred by these two species. For this reason, the primary impact of motorized use on this analysis group is disturbance during the breeding season and non-breeding seasons.

Birds in the ponderosa pine analysis group mostly nest high in the overstory canopy and in the foliage of live pine trees, or on the ground in pine-dominated landscapes. Ponderosa pine is the most common migratory bird habitat type in the landscape, about 32% of the overall landscape. Few green trees are generally lost to trail construction or maintenance activities, compared to the large number of trees available in the landscape. For this reason, the primary impact of motorized use on this analysis group is disturbance during the breeding season.

Riparian and wetlands habitats are the least common habitats in the landscape, accounting for less than 1% of the overall landscape, yet there are the most bird species in this analysis group (8). The loss or degradation of even small amounts of riparian or wetland habitats can therefore

have disproportionate impacts on birds in this analysis group. Motorized travel often causes permanent losses of small amounts of habitat for these species, as well as disturbance to preferred breeding and foraging areas.

Sagebrush shrubland habitats comprise about 3% of the landscape, mostly in the Sauls Creek area. Decades of human use of this area have resulted in most sagebrush stands becoming highly modified with few areas remaining suitable for the two bird species in this analysis group. For this reason, the loss or degradation of even small amounts of sagebrush habitat can have disproportionate impacts on the two bird species in this analysis group.

Alternative 1 – No Action

About 27,874 acres of migratory bird habitats are within ¼ mile of routes currently being used for motorized travel in the landscape and therefore are potentially affected by disturbance from motorized travel. This is about 51% of the migratory bird habitats on Federal lands in the landscape. Under Alternative 1 about half of the migratory bird habitats in the Beaver Meadows-Sauls Creek Landscape would remain potentially exposed to the direct and indirect effects of motorized travel.

Alternative 1 would be a continuation of the existing motorized use conditions in the Beaver Meadows-Sauls Creek Landscape. Areas open to cross country motorized travel would remain open, and currently authorized and user-created trails would continue to be used and/or expanded. Because off-road and off-trail motorized use would still be permitted across the landscape, potential for disturbance to migratory birds away from authorized routes would remain, and unintentional loss of key habitat components would continue to be possible. Seasonal closures to motorized use would remain in effect in the Baldy Mountain area in the fall and in the Sauls Creek area during winter. This alternative does not meet the intent of the Chief's 2005 Travel Management Rule and is cited here only as a basis for comparison of the alternatives.

Alternative 1 has a much higher potential for disturbance to migratory birds, compared to the other project alternatives. Because uncontrolled cross country motorized use would continue under Alternative 1, the potential loss of key habitat components (such as standing snags, and motorized impacts in wetland or riparian areas) from new user-created routes would also continue. Alternative 1 would likely cause a gradual incremental (and immeasurable) decline in habitat capability for migratory birds due to an expected continued incremental increase in the number of motorized users on all routes and in most areas. This continued incremental increase in the number of motorized users would likely result in a gradual incremental decrease in habitat effectiveness for migratory birds due from continued increases in cross country motorized travel and increased impacts (loss and/or modification) to key habitat components due to continued increases in user-created trails.

Alternative 2

About 16,087 acres of migratory bird habitats are within ¼ mile of roads and trails that would remain open to motorized use under Alternative 2. This is about 29% of the migratory bird habitats on Federal lands in the landscape. For this reason, selecting Alternative 2 would reduce the amount of the landscape potentially exposed to the direct and indirect effects of motorized travel by about 22% compared to Alternative 1 (51% of landscape).

For migratory bird analysis groups and species potentially affected by motorized travel in the landscape, selecting Alternative 2 would result in the greatest overall improvement in habitat conditions. Alternative 2 would be wholly beneficial because there would be no new

construction of single track trails, little reconstruction or improvement along OHV trails, and no construction of new parking/staging areas along the existing road network. The linear distance of roads and trails open to motorized use would drop by 62% compared to Alternative 1 (162 miles under Alt. 1 versus 62 miles under Alt. 2) and be limited mostly to the existing primary road network. Most existing user-created trails would re-vegetate over the short term (5 – 10 years) thereby providing long term (greater than 10 years) improvements in habitat conditions for migratory birds.

There would be a substantial reduction in the number and length of trails open to motorized use in the Sauls Creek area, compared to Alternative 1, thereby improving habitat conditions for birds in the sagebrush shrublands and piñon-juniper woodland analysis groups. The seasonal closure period currently in effect in the Sauls Creek area would remain in effect, providing security areas throughout the winter and until the beginning of breeding season for all species in the sagebrush shrublands and piñon-juniper woodland analysis groups. The Baldy Mountain closure period would be expanded to include the later part of August and the month of September, thereby providing additional protection from motorized use disturbance to birds using this area during the post-breeding period of late summer and early fall.

Selecting Alternative 2 would substantially reduce the potential disturbance effects from cross-country motorized travel in the Beaver Meadows-Sauls Creek Landscape. Removal of the "C", "D" and "E" management area designations that currently allow cross country motorized travel would substantially reduce the potential for noise disturbance from motorized vehicles in areas that were formerly open to cross country motorized travel.

Because motorized travel would be limited mostly to the existing road network, there would be little risk of increase in user-created trails and therefore little risk of additional loss and/or impacts to key habitat components for migratory birds, such as standing snags, large-diameter down woody debris, seasonal wetlands, and mountain grasslands. Because disturbance from motorized traffic would be limited mostly to the existing road network, disturbance would be more predictable to birds in location, time of day, distribution of vehicles across the landscape, as well as more concentrated in existing road corridors.

Alternative 3

About 22,313 acres of migratory bird habitats are within ¼ mile of roads and trails that would remain open to motorized use under Alternative 3. This is about 40% of the migratory bird habitats on Federal lands in the landscape. For this reason, selecting Alternative 3 would reduce the amount of the landscape potentially exposed to the direct and indirect effects of motorized travel by about 11% compared to Alternative 1 (51% of landscape), but increase it about 12% compared to Alternative 2 (29%).

Selecting Alternative 3 would be, on balance, beneficial for migratory birds, but the degree of benefit would be substantially less than under Alternative 2. Selecting Alternative 3 would have both positive and negative effects for birds. Although there would be additional areas protected from motorized use disturbance by removing authorization for cross country motorized travel, compared to Alternative 1, when compared to Alternative 2 there would be a substantial increase in the number of trail miles open to motorized use use (7 miles under Alternative 2 versus 52 miles under Alternative 3). Alternative 3 would substantially increase the number of miles of roads and motorized trails combined (98 miles) compared to Alternative 2 (62 miles), but would be less than under Alternative 4 (105 miles). The number of miles of roads and motorized trails combined under Alternative 3 would be 40% less than under the current condition (Alternative 1).

Under this alternative there would be some minor trail reconstruction, realignment, and treadway improvement work required before some designated trail segments would be opened for motorized use. This trail work would result in some minor losses of habitat or displacement of individual birds and increased disturbance during the construction season. New parking/staging areas would be constructed along the Beaver Meadows Road and Sauls Creek Road, resulting in minor permanent losses of habitat for birds in the sagebrush shrubland analysis group.

Compared to Alternative 2, Alternative 3 would designate substantial additional trail miles for motorized use in the Baldy Mountain area, the Sauls Creek area, along the Bear Creek Trail, the Jungle Canyon and Uncle Charlie areas, and a new single track motorcycle trail between the High Point and Bear Creek Roads. None of these roads and trails would be authorized under Alternative 2. For these reasons and for all migratory birds, the generally overall beneficial effects of selecting Alternative 3 would be considerably less than the larger and wholly beneficial effects of selecting Alternative 2.

There would be some beneficial effects to migratory birds for selecting Alternative 3, compared to Alternative 1. There would be somewhat reduced disturbance along the Jungle Canyon Road and portions of the Ute Park Road due to limiting traffic to vehicles less than 50 inches wide and prohibiting travel by full-sized vehicles. The prohibition of full-sized vehicles on these road segments would also substantially reduce the likelihood of firewood harvesting, thereby maintaining current habitat capability for birds associated with standing snags. The Baldy Mountain closure period would be expanded to include the later part of August and the month of September, thereby providing additional protection from disturbance to birds using this area in the post-breeding season of late summer and early fall. The seasonal closure period currently in effect in the Sauls Creek area would remain in effect, providing security areas throughout the winter and until the beginning of breeding season for all species in the sagebrush shrublands and piñon-juniper woodland analysis groups.

Alternative 4

About 23,427 acres of migratory bird habitats are within ¼ mile of roads and trails that would remain open to motorized use under Alternative 4. This is about 41% of the migratory bird habitats on Federal lands in the landscape. For this reason, selecting Alternative 4 would reduce the amount of the landscape potentially exposed to the direct and indirect effects of motorized travel by about 10% compared to Alternative 1 (51% of landscape), but increases it about 12% compared to Alternative 2 (29%), and increase it about 1% compared to Alternative 3 (40%).

The overall generally beneficial effects to migratory birds of selecting Alternative 4 would be substantially less than the much larger and wholly beneficial effects of selecting Alternative 2, and would be somewhat less that the generally beneficial effects of selecting Alternative 3. Selecting Alternative 4 would have both positive and negative effects for birds. Compared to Alternative 1, Alternative 4 would protect many areas from motorized use disturbance by removing authorization for cross country motorized travel. Selecting Alternative 4 however would substantially increase the number of trail miles open to motorized use (105 miles), compared to Alternative 2 (62 miles) and Alternative 3 (98 miles).

Under Alternative 4 there would be some minor trail reconstruction, realignment, and treadway improvement work required before some designated trail segments would be opened for motorized use. This trail work would result in some minor losses of habitat and possible displacement of individual birds, and increased disturbance to birds during the construction season. New parking/staging areas would be constructed along the Beaver Meadows Road and Sauls Creek Road, resulting in minor permanent losses of habitat for birds in the sagebrush

shrubland analysis group. The Baldy Mountain seasonal closure period would be entirely removed, allowing motorized disturbance to affect birds in this area season long. The seasonal closure period currently in effect in the Sauls Creek area would remain in effect, providing security areas throughout the winter and until the beginning of breeding season for all species in the sagebrush shrublands and piñon-juniper woodland analysis groups.

Compared to Alternative 2 and Alternative 3, Alternative 4 would designate some additional trail miles for motorized use in the Sauls Creek area, the Bear Creek Loop, the Beaver Slope Road, and a new out and back trail to the ponds in Devil's Hole. None of these roads and trails would be authorized under Alternative 2 or Alternative 3. For this reason, there could be additional disturbance affects to birds in the riparian/wetlands analysis group and sagebrush group under Alternative 4.

Under Alternative 4, the Jungle Canyon Road and portions of the Ute Park Road would remain open to full size vehicle traffic (similar to current condition), thereby probably slightly increasing traffic volumes and potential disturbance to birds, compared to what might be expected under Alternative 3. Allowing full-sized vehicles on these road segments would allow continued harvesting of standing snags for firewood, thereby allowing the likely loss of standing snags to continue, and incremental loss of habitat capability for birds associated with standing snags (cavity constructor group and cavity-dependant group).

For nearly all bird species and analysis groups, the generally overall beneficial effects of selecting Alternative 4 would be considerably less than the much larger and wholly beneficial effects of selecting Alternative 2, and would be slightly less than the generally beneficial effects of selecting Alternative 3. The reduced benefits of selecting Alternative 4, compared to Alternative 3, would be due to increased disturbance due to designating 10 more miles of roads and trails open to motorized travel, some of which would involve new trail construction, and therefore also creating minor but permanent losses of habitat for some birds, especially in the sagebrush shrublands, piñon-juniper woodland, and riparian/wetland analysis groups.

CUMULATIVE IMPACTS

The Beaver Meadows-Sauls Creek Landscape has a wide variety of historic and ongoing activities that also affect wildlife habitat value. The area has experienced a long history of timber harvest and much of the Beaver Meadows area remains in a timber management emphasis area. Many miles of roads exist in the Landscape and timber harvest was the primary reason many were constructed. Timber harvest rates have declined dramatically over the past 20 years, but it remains a primary management emphasis and important tool for maintaining and improving habitat conditions for migratory birds.

Fire suppression has been the overriding strategy for dealing with all fires in the Landscape since human settlement in the late 1800's. However, the 2002 Missionary Ridge Fire altered substantial portions of nearby areas and burned about 70,000 acres of wildlife habitat. Effects of this unusual fire event will last for the next 50+ years and continue to affect, both positively and negatively, wildlife habitat capability and species distribution for decades to come. Effects of the Missionary Ridge fire significantly reduced habitat for some bird species in the short term (such as green-tailed towhee) and in the long term (such as northern goshawk). Other bird species such as Merriam's turkey and the cavity constructor and cavity-dependant analysis groups experienced substantial improvements in foraging and nesting habitat conditions. The burn area continues to provide important high quality habitat for these species.

There has been a substantial increase in the amount and distribution of motorized use in the Sauls Creek area over past 10 - 20 years. Along with that increased use, a growing network of user-

created trails has developed and has likely caused incremental declines in habitat effectiveness for some bird species, especially those species in the piñon-juniper woodland and sagebrush shrublands analysis groups. The increased popularity of motorized recreation experiences over the past 10 – 20 years is likely to continue in this area for the foreseeable future.

Much higher past levels and intensities of cattle grazing had significant impacts on soil and vegetation conditions, especially in the Sauls Creek area. However, under current livestock management practices, livestock grazing across the landscape as a whole is generally not having significant affects on habitat conditions for most migratory birds.

A wide range of non-motorized recreation use occurs throughout the year in the Beaver Meadows-Sauls Creek Landscape. Summer activities include hiking, horseback riding, mountain biking, hunting, fishing, camping, sightseeing, and harvesting firewood for personal use. Expansion of the road system in the last half of the 20th century attracted ever increasing motorized recreation use in the area, particularly during the big game hunting seasons in the months of October and November. These uses have contributed to small losses of key habitat components for some birds, such as in the cavity constructor and cavity-dependant analysis groups, as well as increased disturbance in some areas.

Development of coal bed methane reserves in the Sauls Creek area over the past 15 years has resulted in a substantial increase in the developed road network in this area. The roads provide access for public recreation during summer, and are plowed in winter but limited to use by industry personnel only for the purposes of maintaining field production and safety of production infrastructure. Expansion of coal bed methane facilities in the Sauls Creek area has, over the past 15 years, substantially improved roaded access to much of the area during summer and fall and therefore improved motorized and non-motorized recreational opportunities across the area. This increased access has resulted in substantial increases in human use and consequently substantial increases in impacts to migratory birds year round.

There has also been continued expansion and increased density of residential housing scattered among and around Federal lands in the Beaver Meadows and Sauls Creek Landscape. Continued residential development in the wildland urban interface will likely contribute to continued gradual reductions in habitat capability for some bird species on Federal lands near private land boundaries. As the town of Bayfield has grown and expanded over the past decades, the number of non-motorized recreationists using Federal lands has also grown, contributing to incremental increases in disturbance and likely incremental losses of key habitat attributes for some migratory birds.

Cultural Resources

AFFECTED ENVIRONMENT

There is evidence of occupation of the analysis area from approximately 5,500 years ago to the present. During prehistoric times, the analysis area was primarily utilized on a seasonal basis for resource procurement activities such as hunting and plant gathering, though in the Sauls Creek area permanent habitations were established. This occupation is affiliated with archaic, ancestral puebloan (Anasazi) (specifically Pueblo I in Sauls Creek), and protohistoric (Ute) cultures. Evidence of historic occupation includes seasonal resource procurement activities such as hunting and plant gathering and the remains of logging, mining, ranching, and herding activities. The historic period occupation in the analysis area is affiliated with Ute, European-American, African-American, and Hispanic-American cultures.

The analysis area for this assessment is defined as the approximately 54,357 acres in FS ownership (Beaver Meadows 48,557 acres, and Sauls Creek 5,800 acres), and approximately 797 acres on BLM. One hundred thirty-nine cultural resource inventories associated with federal undertakings have been completed in the analysis area within the past 31 years. Most of these inventories are associated with fuels management, livestock grazing, timber management, and oil and gas development.

One hundred sixty-nine cultural resources have been identified in the analysis area. Of this number, 153 are sites and 223 are isolated finds. Twenty-seven of the known sites are eligible, 76 are not eligible, 24 are unevaluated, and 26 need additional data prior to completing an evaluation for the National Register of Historic Places (NRHP). Generally, the majority of sites in the overall region of the analysis area consist of prehistoric features associated with seasonal or temporary habitation of the area, the remains of small open prehistoric camps and resource processing/tool manufacture sites evidenced by lithic and ceramic scatters, and historic features associated with open range grazing, timber production and mineral exploration. Specifically in Sauls Creek, pithouses and pithouse villages are the common permanent habitation site type. The results of previous inventories and the specific environmental characteristics (moderate elevation, steep slopes, intermittent drainages, some permanent water sources, and geologic setting) indicate the analysis area is characterized by a moderate site density. A cultural resources report containing new survey and site re-evaluation results, National Register determinations, and effects of the project on historic properties was produced and sent to the Colorado State Historic Preservation Officer, as required for compliance with the National Historic Preservation Act.

Table 7. Cultural Resources and Survey in the Analysis Area

Federal Acres in Analysis Area	Total Sites and Isolates	Eligible, Need Data, Unevaluated Sites	Acres of Intensive Survey	Total Percent of Analysis Area Surveyed
54,357	376	77	11,000	20%

ENVIRONMENTAL CONSEQUENCES

The goal of a cultural resource analysis for travel management planning on the Beaver Meadows-Sauls Creek Landscape is to identify and protect historic properties from impacts related to motorized use on designated roads and trails. Preservation of NRHP listed and eligible sites are the preferred cultural resource management objective. The effects of a proposed project are taken into consideration for cultural resources that are eligible or potentially eligible for the NRHP. Cultural resources considered to be ineligible for inclusion in the NRHP may not warrant further consideration of effects from the proposed project. The recording of this class of cultural resources has exhausted their data potential, and effectively mitigated any impacts that may occur to them.

Motorized use has the potential to directly affect historic properties via ground disturbance from frequent and concentrated motorized travel within sites and motorized travel through sites in wet conditions. Such ground disturbance can result in the damage and displacement of artifacts and features can occur, degrading site integrity and research potential. Motorized travel through a site can result in a decrease in vegetation and an increase in the amount of bare soil within a site over time. Tire rutting can form new intermittent drainages within a site, resulting in increased erosion and soil deflation within a site. Soil erosion and compaction within a site can result in a loss of

artifacts and research potential. Road and trail maintenance and improvement (new sign, gate, and culvert installation) activities within site boundaries can directly affect sites by reducing site integrity, and damaging or displacing site features and artifacts. Ground disturbance associated with parking area construction and sign installation could disturb or destroy cultural resources, should any be present in planned parking area locations. Road decommissioning (in particular, ripping and seeding) can further impact sites that have been partially disturbed by road construction and maintenance actions. Camping within 300 feet of centerline of open forest system roads has the potential to directly and indirectly affect historic properties within and through sites during wet and dry conditions. This type of ground disturbance can result in the damage, displacement and collection of artifacts, damage to features, and degrading site context/integrity and research potential.

Alternative 1 - No Action

Cross country motorized travel, motorized travel on designated open and closed system roads, maintenance and improvement of designated open system roads, motorized travel for dispersed camping within 300 feet of designated open system roads, and off road parking associated with dispersed camping are the activities associated with Alternative 1 that could affect cultural resources. General impacts associated with these activities have been discussed in the cultural environmental consequences section of this document. Motorized travel, road maintenance, and parking within dispersed camping areas can directly and indirectly impact sites if the motorized travel, road maintenance, or camping occurs within or through sites. Utilization of user-created routes (associated with cross country motorized travel and motorized travel for dispersed camping within 300 feet of designated open system roads) and the proliferation of those routes would continue, along with an increasing potential for direct and indirect impacts to occur to previously unaffected known and unknown sites. Existing and potential future impacts from motorized cross country travel, motorized travel for dispersed camping within 300 feet of designated open system roads, and motorized travel on closed system roads would not likely be identified and mitigated. As cross-country travel by motorized vehicles in the existing “D”, “C”, and “E” areas would continue to be permissible, this alternative has the greatest potential to impact NRHP listed, eligible, or potentially eligible cultural resources.

There are 77 known eligible and potentially eligible sites within the analysis area that could potentially be affected by the range of activities discussed in the previous paragraph common to Alternative 1. As it is not possible to implement this alternative, specific information regarding ongoing impacts to these sites from cross country motorized travel and motorized travel on closed system roads was not analyzed.

Alternative 2

The activities associated with Alternative 2 that have the potential to affect historic properties are: motorized travel on, and maintenance and improvement of, designated open system roads and trails; road decommissioning; signing; motorized off road travel for dispersed camping within 300 feet of a designated open system road; and off road parking associated with dispersed camping. General impacts associated with these activities have been discussed in the cultural environmental consequences section of this document. Motorized travel, road and trail maintenance, signing, reroutes, parking within dispersed camping areas, and road and trail decommissioning could directly and indirectly impact sites if they occur within or through sites. Motorized off road access to dispersed camping within 300 feet of designated open system roads could result in an increase in the amount of user-created cross country routes on the landscape. However, the mountainous terrain in Beaver Meadows area and the erosive environment of the

Sauls Creek Landscape somewhat limits the potential for this to occur. As cross-country motorized travel in the existing "D", "C", and "E" areas of the Beaver Meadows-Sauls Creek Landscape would no longer be allowed and all travel would be restricted to existing system roads and trails, there should be a decrease in impacts to NRHP eligible and potentially eligible sites. The Area of Potential Effect (APE) for Alternative 2 constitutes a corridor of 600 feet (to take into account the potential effect from dispersed camping) for all designated open system roads, and a corridor of 100 feet for all designated motorized open system trails. However, it should be noted that within the 600 foot "dispersed camping" corridor, there are some areas within the Beaver Meadows Landscape that pose an environmental challenge (dense vegetation, heavy erosion, deep ditches, steep slopes) to camping so these areas were not analyzed for this project as they were deemed inaccessible for the specified activity. Instead, current or possible camping areas were identified, in the field, for new survey within this corridor of 600 feet. Pertaining to the trails corridor, no previously known constructed logging roads within the Beaver Meadows Landscape were considered for new survey as they were considered to have already destroyed any cultural resources previously in their path. Therefore, the APE for Alternative 2 of the Beaver Meadows-Sauls Creek Landscape is approximately 4,023 acres of the 54,357 acres in the analysis area.

Approximately 3,024 acres of Alternative 2 have been intensively surveyed resulting in 13 known eligible and potentially eligible sites within the APE that could potentially be affected by the range of activities discussed in the previous paragraph common to Alternative 2. Four of the 13 known eligible and potentially eligible sites in the APE are intersected by a currently designated open system road or trail. Twelve of the known eligible and potentially eligible sites in the APE for Alternative 2 are within 300 feet of the center line of a currently designated open system road. One known eligible and potentially eligible site is within 50 feet of either side of center of a potentially designated open system trail. New field survey resulted in two known eligible sites being affected by dispersed camping within 300 feet of a designated open system road and/or by off road, day use, parking. In Alternative 2, four eligible sites would require avoidance measures, and six eligible or potentially eligible sites would require additional monitoring.

Alternative 3

The activities associated with Alternative 3 that have the potential to affect historic properties are: maintenance and improvement of, and motorized travel on designated open system roads and trails; motorized off road travel for dispersed camping within 300 feet of a designated open system road; off road parking associated with dispersed camping; road decommissioning; signing and other trailhead facilities, upgrade of Lange Canyon loop trail; installation of new gates and OHV bypasses not previously cleared by other projects; construction of new parking lots adjacent to Beaver Meadows road (NFSR 135) on the north side and one adjacent to the existing gate on Sauls Creek road NFSR 608; and the potential conveyance of easements for the first 1.9 miles of Sauls Creek Road (NFSR 608) and the first 2.5 miles of Beaver Meadows road (NFSR 135) to La Plata County. General impacts associated with these activities have been discussed in the cultural environmental consequences section of this document. Motorized travel, road and trail maintenance, parking area construction, and parking within dispersed camping areas, signing, reroutes, and road/trail decommissioning could directly and indirectly impact sites if they occur within or through sites. Motorized off road access to dispersed camping within 300 feet of designated open system roads could result in an increase in the amount of user-created cross country routes on the landscape. Specific to Alternative 3, direct and indirect effects to historic properties could result from the designation of selected closed

roads and user-created routes as system trails to create loops and out-and-back trails for wheeled vehicles 50" or less in width. Selected closed roads and user-created trails could inadvertently pass through sites. In such cases, potential disturbance to sites from motorized travel through sites, and road and trail maintenance within site boundaries would continue at present levels or increase in intensity. Potential future parking area construction could impact significant cultural resources except where those potential parking areas are within the boundaries of existing gravel pits. Ripping and seeding activities associated with road decommissioning could also affect historic properties. In the case of any conveyance of road easements to La Plata County, the county would assume the maintenance responsibilities of those portions of the easements which could result in direct impacts to cultural resources from blading and ditch work. The Area of Potential Effect (APE) for Alternative 3 consists of a corridor of 600 feet (to take into account the potential effect from dispersed camping) for all designated open system roads and a corridor of 100 feet for all designated 50" or less motorized open system trails. However, it should be noted that within the 600 foot "dispersed camping" corridor, there are some areas within the Beaver Meadows Landscape that pose an environmental challenge (dense vegetation, heavy erosion, deep ditches, steep slopes) to camping so these areas were not analyzed for this project as they were deemed inaccessible for the specified activity. Instead, current or possible camping areas were identified, in the field, for new survey within this corridor of 600 feet. Pertaining to the trails corridor, no previously known constructed logging roads within the Beaver Meadows Landscape were considered for new survey as they were considered to have already destroyed any cultural resources previously in their path. Therefore, the APE for Alternative 3 of the Beaver Meadows-Sauls Creek Landscape is approximately 4,072 acres of the 54,357 acres in the analysis area.

Approximately 3,300 acres of Alternative 3 have been intensively surveyed resulting in 11 known eligible and potentially eligible sites within the APE of Alternative 3 that could potentially be affected by the range of activities discussed in the previous paragraph common to Alternative 3. Four of the known 11 eligible or potentially eligible sites are intersected by a currently designated open system road or trail. Ten of the known eligible and potentially eligible sites in the APE for Alternative 3 are within 300 feet of the center line of a currently designated open system road. Five known eligible and potentially eligible sites are within 50 feet of either side of center of a proposed designated system trail. New field survey resulted in two known eligible sites being affected by dispersed camping within 300 feet of a designated open system road and/or by off road, day use, parking. In Alternative 3, three eligible sites would require avoidance measures, one site would require a trail reroute, and five eligible or potentially eligible sites would require additional monitoring.

One non-eligible site would be impacted by the conveyance of easements for the first 1.9 miles of Sauls Creek road (NFSR 608) No impacts would occur from the conveyance of easement for the Beaver Meadows road (NFSR 135) to La Plata County as there are no cultural resources located within these easement boundaries.

Alternative 4

The activities associated with Alternative 4 that have the potential to affect historic properties are: maintenance and improvement of, and motorized travel on, designated open system roads and trails; motorized off road travel for dispersed camping within 300 feet of a designated open system road; off road parking associated with day use; road decommissioning; upgrade of Lange Canyon loop trail; construction of new parking lots adjacent to Beaver Meadows road (NFSR 135) on the north side, one adjacent to the existing gate on Sauls Creek road NFSR 608, and an additional parking area on the Crowbar Creek road (NFSR 755) near the existing gate; trail

construction; and signing. General impacts associated with these activities have been discussed in the cultural environmental consequences section of this document. Motorized travel, road and trail maintenance, parking area and trail construction, parking within dispersed camping areas, signing, reroutes, and road/trail decommissioning could directly and indirectly impact sites if these activities occur within or through sites. Motorized off road access to dispersed camping within 300 feet of designated open system roads can result in an increase in the amount of user-created cross-country routes on the landscape. Specific to Alternative 4, direct and indirect effects to historic properties could result from the designation of selected closed roads and user-created routes as system trails to create loops and out-and-back trails for wheeled vehicles 50" or less in width. Selected closed roads and user-created trail routes could inadvertently pass through sites. In such cases, potential disturbance to sites from motorized travel through sites, and road and trail maintenance within site boundaries would continue at present levels or increase in intensity. Potential future parking area construction could impact significant cultural resources except where those potential parking areas are within the boundaries of existing gravel. Ripping and seeding activities associated with road decommissioning could also affect historic properties.

The Area of Potential Effect (APE) for Alternative 4 constitutes a corridor of 600 feet (to take into account the potential effect from dispersed camping) for all designated open system roads and a corridor of 100 feet for all designated 50" or less motorized open system trails. However, it should be noted that within the 600 foot "dispersed camping" corridor, there are some areas within the Beaver Meadows Landscape that pose an environmental challenge (dense vegetation, heavy erosion, deep ditches, steep slopes) to camping so these areas were not analyzed for this project as they were deemed inaccessible for the specified activity. Instead, current or possible camping areas were identified, in the field, for new survey within this corridor of 600 feet. Pertaining to the trails corridor, no previously known constructed logging roads within the Beaver Meadows Landscape were considered for new survey as they were considered to have already destroyed any cultural resources previously in their path. Therefore, the APE for Alternative 4 of the Beaver Meadows-Sauls Creek Landscape is approximately 4,699 acres of the 54,357 acres in the analysis area.

Approximately 3,861 acres of Alternative 4 have been intensively surveyed resulting in 15 known eligible and potentially eligible sites within the APE of Alternative 4 that could potentially be affected by the range of activities discussed in the previous paragraph. Seven of the known 15 eligible or potentially eligible sites are intersected by currently designated open system roads or trails. Twelve of the known eligible and potentially eligible sites in the area of potential effect for Alternative 4 are within 300 feet of the center line of a currently designated open system road. Four known and potentially eligible sites are either intersected by or are within 50 feet of either side of center of a proposed designated system trail. New field survey resulted in two known eligible sites being affected by dispersed camping within 300 feet of a designated open system road and/or by off road, day use, parking. In Alternative 4, five eligible sites would require avoidance measures, one site would require a trail reroute, and five eligible or potentially eligible sites would require additional monitoring.

CUMULATIVE IMPACTS

Activities and actions other than those related to travel management have, are, or will occur in the analysis area could impact cultural resources. These include such things as recreational use, commercial outfitter-guide activities, fuels reduction, oil and gas development, timber sales, and livestock grazing activities. Typically, planned federal undertakings such as fuels reduction projects, timber sales, oil and gas development, and open range allotment permit

re-issuance undergo compliance with legislation such as the National Historic Preservation Act, which would require mitigation of negative impacts to cultural resources. However, unforeseen or unregulated activities have greater potential for impacting cultural resources. For example, naturally ignited wildland and recreational campfires could result in the burning of fire-sensitive sites such as significant historic wooden structures and features. Permitted fuel wood collection could result in the cutting of historic aspen art trees. Illegal artifact collection occurs and can be exacerbated by increased public access from commercially permitted and general public recreational use. Livestock grazing could pose a threat to cultural resources by diminishing site integrity and eligibility through the trampling and mixing of artifacts and depositional surfaces within site boundaries. Natural erosion accelerated by human activities could expose or wash artifacts away. These isolated incidences cumulatively have the potential to adversely impact the integrity of historic landscapes as a whole. The proposed project alone would provide a minimal contribution to these cumulative impacts.

Consultation and Coordination

The FS consulted the following Federal, State, and local agencies, tribes and non-Forest Service organizations during the development of this environmental assessment:

ID TEAM MEMBERS:

Team Leader/Recreation: Nancy Berry

NEPA Coordinator: Cam Hooley

Wildlife Biologist: Chris Schultz

Hydrologist: Kay Zillich

Archeologist: Amy Wise

Ecologist: Jeff Redders

Engineering: Mary Blanchard

Forester: Dave Crawford

Trails: Don Kelly

FEDERAL, STATE, AND LOCAL AGENCIES:

USDI Fish and Wildlife Service

Colorado Division of Wildlife

Colorado State Historic Preservation Officer

La Plata County

TRIBES:

Hopi Tribe

Jicarilla Apache Nation

Navajo Nation

Northern Ute Tribe

Ohkay Owinge

Pueblo of Acoma

Pueblo de Cochiti

Pueblo of Isleta

Pueblo of Jemez

Pueblo of Laguna

Pueblo of Nambe

Pueblo of Picuris

Pueblo of Pojoaque

Pueblo of Sandia

Pueblo of San Felipe

Pueblo of San Ildefonso

Pueblo of Santa Ana

Pueblo of Santa Clara

Pueblo of Santo Domingo

Pueblo of Taos

Pueblo of Tesuque

Pueblo of Zia

Southern Ute Indian Tribe

Ute Mountain Ute Tribe

Zuni Pueblo

ORGANIZATIONS who responded to scoping:

Deer Valley POA

Four Corners Backcountry Horsemen

Great Old Broads for Wilderness

Natl. Off-Highway Vehicle Coalition Council

Public Access Preservation Assoc.

Rocky Mountain Ramblers

San Juan Citizens Alliance

San Juan Trail Riders

ACRONYMS AND GLOSSARY

APE – Area of Potential Effect (for cultural resources)

ATV – All Terrain Vehicle: A type of OHV. Motorized off-highway vehicle 50" or less in width, having a dry weight of 600 pounds or less that travels on three or more low-pressure tires with a seat designed to be straddled by the operator.

BA- Biological Assessment

BLM - Bureau of Land Management

CFR – Code of Federal Regulations: The codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government.

CR - County Road: a public road under the jurisdiction of the County and open to public travel.

EA – Environmental Assessment

EIS – Environmental Impact Statement

FS - Forest Service

FSH – Forest Service Handbook: National Direction

FSM – Forest Service Manual: National Direction

HDs – HD Mountains: range name east of Bayfield

IRA – Inventoried Roadless Area

LAU – Lynx Analysis Unit

MIS – Management Indicator Species

MVUM – Motor Vehicle Use Map: a map reflecting designated roads, trails and areas on a National Forest System administrative unit or Ranger District.

NEPA – National Environmental Policy Act

NFSR – National Forest System Road

NFST - National Forest System Trail

NRHP – National Register of Historic Places

OHV - Off Highway Vehicle: Any wheeled motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland or other natural terrain. Includes such types as ATVs, UTVs, and motorcycles.

ORV- same as OHV.

RMP – Resource Management Plan (BLM)

SJNF – San Juan National Forest

UTV- Utility Terrain Vehicle: A type of OHV. Any wheeled motorized vehicle designed for or capable of cross-country travel with side-by-side seating and a steering wheel.

Decommissioning – Activities that result in stabilizing and restoring unneeded roads, trails or routes to a more natural state, removing a road, trail or unauthorized route from service.

Deferred Maintenance – Maintenance not performed when scheduled and delayed for the future.

Dispersed Camping – Camping where no facilities (table, toilets, water, trash service, etc.) exist and no fees are charged, and if any services are available, it is purely for the protection of the resource.

Forest Road or Trail – A road or trail wholly of partly within or adjacent to, and serving the National Forest System that the USFS deems necessary for protection, administration, and use of the Forest and the use and development of its resources.

Highway Legal Vehicle – Vehicles licensed and registered in accordance with State law for use on public roads.

Mixed Use - The operation of non-highway legal vehicles, such as ATVs and unlicensed motorcycles, on Forest roads which are also open to highway legal vehicle use.

Motorcycle trail – A single-track motorized trail that is designed for motorcycles; a two wheeled motor vehicle on which the two wheels are not side-by-side, but in line.

Non-highway Legal Vehicle – Vehicles not licensed and therefore not allowed on certain public roads

Potential Future Motorized Trail – Segments of motorized trail included in this analysis, contingent upon meeting some condition prior to the segment being opened for use: either reconstruction/maintenance/or design work being implemented, or public access being granted through private land to a trailhead.

Route – A non-system road or trail created by users.

Temporary Road or Trail – a road or trail necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road or trail and is not included in a Forest Transportation Atlas.

Unauthorized Road or Trail – A road or trail that is not a Forest road or trail or a temporary road or trail and is not included in the Forest Transportation System.

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APPENDIX A – MAPS/FIGURES

Figure 1 – Beaver Meadows-Sauls Creek Landscape Location

Figure 2 – Alternative 1

Figure 3 – Alternative 2

Figure 4 – Alternative 3

Figure 5 – Alternative 3: Sauls Creek Only

Figure 6 – Alternative 4

Figure 7 – Alternative 4: Sauls Creek Only

Figure 8 – Roadless/Special Areas